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=> d his nofile

     (FILE 'HOME' ENTERED AT 10:53:45 ON 06 JUN 2006)

     FILE 'REGISTRY' ENTERED AT 10:53:56 ON 06 JUN 2006
L1             STRUCTURE UPLOADED
L2           7 SEA SSS SAM L1
L3             STRUCTURE UPLOADED
L4          50 SEA SSS SAM L3
L5             STRUCTURE UPLOADED
L6          50 SEA SSS SAM L5
L7             STRUCTURE UPLOADED
L8          50 SEA SSS SAM L7

     FILE 'STNGUIDE' ENTERED AT 11:07:59 ON 06 JUN 2006

     FILE 'REGISTRY' ENTERED AT 11:09:15 ON 06 JUN 2006
L9             STRUCTURE UPLOADED
L10         50 SEA SSS SAM L9

     FILE 'STNGUIDE' ENTERED AT 11:09:59 ON 06 JUN 2006

     FILE 'REGISTRY' ENTERED AT 11:13:19 ON 06 JUN 2006
L11            STRUCTURE UPLOADED
L12          8 SEA SSS SAM L11
               D SCAN

     FILE 'STNGUIDE' ENTERED AT 11:15:00 ON 06 JUN 2006

     FILE 'REGISTRY' ENTERED AT 11:19:29 ON 06 JUN 2006
L13            STRUCTURE UPLOADED
L14         50 SEA SSS SAM L13
L15            STRUCTURE UPLOADED
L16          7 SEA SSS SAM L15
               D SCAN
               D QUE
L17        121 SEA SSS FUL L15

     FILE 'CAPLUS' ENTERED AT 11:25:48 ON 06 JUN 2006
L18        226 SEA ABB=ON  PLU=ON  L17
               E US2004-510147/APPS
               E US2005-510147/APPS
L19          1 SEA ABB=ON  PLU=ON  US2005-510147/AP
L20        226 SEA ABB=ON  PLU=ON  (L19 OR L18)
L21         57 SEA ABB=ON  PLU=ON  L20 NOT (PY>2002 OR AY>2002 OR PRY>2002)
L22         58 SEA ABB=ON  PLU=ON  (L21 OR L19)
               E AEROSOL/CT
               E E3+ALL
               E SUSPENSION/CT
               E FORMOTEROL/CT
               E E3+ALL
L23     1423262 SEA ABB=ON  PLU=ON  (AEROSOL? OR SUSPENSION? OR PARTICLE? OR
               FORMOTEROL? OR CICLESONID?)/BI,OBI
L24        169 SEA ABB=ON  PLU=ON  L18 AND L23
L25         16 SEA ABB=ON  PLU=ON  L24 NOT (PY>2002 OR AY>2002 OR PRY>2002)
L*** DEL    57 S L22 NOT (PY>2002 OR AY>2002 OR PRY>2002)
L26         17 SEA ABB=ON  PLU=ON  L22 AND L23
L27         17 SEA ABB=ON  PLU=ON  (L26 OR L25 OR L19)
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                E CICLESONIDE/CT

     FILE 'REGISTRY' ENTERED AT 11:35:48 ON 06 JUN 2006
L28              STRUCTURE UPLOADED
L29            6 SEA SUB=L17 SSS SAM L28
L30           93 SEA SUB=L17 SSS FUL L28

     FILE 'CAPLUS' ENTERED AT 11:39:38 ON 06 JUN 2006
L31          215 SEA ABB=ON  PLU=ON  L30
L32              ANALYZE PLU=ON  L31 1-215 RN :   10060 TERMS
                 D

     FILE 'REGISTRY' ENTERED AT 11:40:33 ON 06 JUN 2006
L33            1 SEA ABB=ON  PLU=ON  126544-47-6
                 D SCAN
L34           92 SEA ABB=ON  PLU=ON  L30 NOT L33

     FILE 'CAPLUS' ENTERED AT 11:40:57 ON 06 JUN 2006
L35           70 SEA ABB=ON  PLU=ON  L34
L36           36 SEA ABB=ON  PLU=ON  L35 NOT (PY>2002 OR AY>2002 OR PRY>2002)
L37           50 SEA ABB=ON  PLU=ON  (L27 OR L36)
L38          167 SEA ABB=ON  PLU=ON  L33
                 E OLIVER M/AU
L39           63 SEA ABB=ON  PLU=ON  ("OLIVER M"/AU OR "OLIVER M J"/AU OR
                 "OLIVER MARTIN"/AU OR "OLIVER MARTIN J"/AU OR "OLIVER MARTIN
                 JOHN"/AU)
                 E JINKS P/AU
L40           13 SEA ABB=ON  PLU=ON  ("JINKS P"/AU OR "JINKS PHILIP A"/AU OR
                 "JINKS PHILIP ANTHONY"/AU)
L41            4 SEA ABB=ON  PLU=ON  L39 AND L40
L42           21 SEA ABB=ON  PLU=ON  (L39 OR L40) AND L23
L43           21 SEA ABB=ON  PLU=ON  (L41 OR L42)

=> file caplus
FILE 'CAPLUS' ENTERED AT 11:45:48 ON 06 JUN 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 6 Jun 2006  VOL 144 ISS 24
FILE LAST UPDATED: 5 Jun 2006  (20060605/ED)

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'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE
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=> d que 143
L23     1423262 SEA FILE=CAPLUS ABB=ON  PLU=ON  (AEROSOL? OR SUSPENSION? OR
                PARTICLE? OR FORMOTEROL? OR CICLESONID?)/BI,OBI
L39          63 SEA FILE=CAPLUS ABB=ON  PLU=ON  ("OLIVER M"/AU OR "OLIVER M
                J"/AU OR "OLIVER MARTIN"/AU OR "OLIVER MARTIN J"/AU OR "OLIVER
                MARTIN JOHN"/AU)
L40          13 SEA FILE=CAPLUS ABB=ON  PLU=ON  ("JINKS P"/AU OR "JINKS PHILIP
                A"/AU OR "JINKS PHILIP ANTHONY"/AU)
L41           4 SEA FILE=CAPLUS ABB=ON  PLU=ON  L39 AND L40
L42          21 SEA FILE=CAPLUS ABB=ON  PLU=ON  (L39 OR L40) AND L23
L43          21 SEA FILE=CAPLUS ABB=ON  PLU=ON  (L41 OR L42)


=> d ibib abs 143 tot

L43  ANSWER 1 OF 21  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2006:496104  CAPLUS
TITLE:                    Pharmaceutical manufacturing process
INVENTOR(S):              Miller, John; Ronald, Paul; Ashley, Adrian; Lamb,
                          Paul; McDonald, Donald; Oliver, Martin;
                          Pollard, Matthew
PATENT ASSIGNEE(S):       Ivax Corporation, USA; Norton Healthcare, Ltd.
SOURCE:                   PCT Int. Appl., 24 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     WO 2006055632         A2    20060526    WO 2005-US41524         20051116
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
             KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
             MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
             SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
             VN, YU, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
PRIORITY APPLN. INFO.:                       GB 2004-25266       A  20041116
AB   The present invention provides a method for preparing a sterile
     suspension of a glucocorticosteroid.  The glucocorticosteroids
     used in the invention are preferably antiinflammatory
     glucocorticosteroids.  By making the last stage of product preparation be the
     sterilization process, the potential for contamination during manufacture and
     heat degradation of products is greatly reduced.

L43  ANSWER 2 OF 21  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2006:172762  CAPLUS
TITLE:                    FeCycle: attempting an iron biogeochemical budget from
                          a mesoscale SF6 tracer experiment in unperturbed low
                          iron waters
AUTHOR(S):                Boyd, P. W.; Law, C. S.; Hutchins, D. A.; Abraham, E.
                          R.; Croot, P. L.; Ellwood, M.; Frew, R. D.; Hadfield,
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M.; Hall, J.; Handy, S.; Hare, C.; Higgins, J.; Hill, P.; Hunter, K. A.; LeBlanc, K.; Maldonado, M. T.; McKay, R. M.; Mioni, C.; ***Oliver, M.***; Pickmere, S.; Pinkerton, M.; Safi, K.; Sander, S.; Sanudo-Wilhelmy, S. A.; Smith, M.; Strzepek, R.; Tovar-Sanchez, A.; Wilhelm, S. W.

CORPORATE SOURCE: National Institute of Water and Atmosphere Centre for Chemical and Physical Oceanography, Department of Chemistry, University of Otago, Dunedin, N. Z.

SOURCE: Global Biogeochemical Cycles (2005), 19(4), GB4S20/1-GB4S20/14, 5 plates
CODEN: GBCYEP; ISSN: 0886-6236

PUBLISHER: American Geophysical Union

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An improved knowledge of Fe biogeochem. is needed to better understand key controls on the functioning of high-nitrate low-chlorophyll (HNLC) oceanic regions. Fe budgets for HNLC waters have been constructed using data from disparate sources ranging from laboratory algal cultures to ocean physics. In summer 2003, we conducted FeCycle, a 10-day mesoscale tracer release in HNLC waters SE of New Zealand, and measured concurrently all sources (with the exception of ***aerosol*** deposition) to, sinks of Fe from, and rates of Fe recycling within, the surface mixed layer. A pelagic Fe budget (timescale of days) indicated that oceanic supply terms (lateral advection and vertical diffusion) were relatively small compared to the main sink (downward particulate export). Remote sensing and terrestrial monitoring reveal 13 dust or wildfire events in Australia, prior to and during FeCycle, one of which may have deposited Fe at the study location. However, Fe deposition rates cannot be derived from such observations, illustrating the difficulties in closing Fe budgets without quantification of episodic atmospheric supply. Despite the 3-fold uncertainties reported for rates of ***aerosol*** deposition (Duce et al., 1991), published atmospheric Fe supply for the New Zealand region is .apprx.50-fold (i.e., 7- to 150-fold) greater than the oceanic Fe supply measured in our budget, and thus was comparable (i.e., a 3rd to 3-fold) to our ests. of downward export of particulate Fe. During FeCycle, the fluxes due to short term (hours) biol. Fe uptake and regeneration were indicative of rapid recycling and were 10-fold greater than for new iron (i.e. estimated atmospheric and measured oceanic supply), giving an fe ratio (uptake of new Fe/uptake of new + regenerated Fe) of 0.17 (i.e., 0.06-0.51 due to uncertainties on ***aerosol*** Fe supply), and an Fe ratio (biogenic Fe export/uptake of new + regenerated Fe) of 0.09 (i.e., 0.03-0.24).

REFERENCE COUNT: 76 THERE ARE 76 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1288661 CAPLUS

DOCUMENT NUMBER: 144:27710

TITLE: Heat sterilization of glucocorticosteroids

INVENTOR(S): Ashley, Adrian; Lamb, Paul; McDonald, Donald; Miller, John; ***Oliver, Martin J.***; Pollard, Mathew

PATENT ASSIGNEE(S): Ivax Corporation, USA; Norton Healthcare, Ltd.

SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005115332	A2	20051208	WO 2005-US17292	20050517
WO 2005115332	A3	20060504		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2004-10995 A 20040517

AB The present invention provides a method for the sterilization of a labile glucocorticosteroid, which method comprises heat-treating by moist heat the labile glucocorticosteroid in the form of a ***suspension*** for a sterilizing-effective time. The methods and compns. according to the invention are useful as therapeutic tools to prevent, reverse, and/or reduce the symptoms of allergic and/or inflammatory conditions in a mammalian patient. The invention also provides methods and compns., which may be manipulated and fine-tuned to fit the condition(s) to be treated while producing fewer side effects. Budenoside was heat treated at 121° for 20 min. The results showed that 0 at higher concentration budenoside showed the least amount of heat induced degradation (about 0.004% difference from untreated controls).

L43 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1132136 CAPLUS
DOCUMENT NUMBER: 144:110424
TITLE: Computer simulation of flow through a lattice flow-cell model
AUTHOR(S): Mazaheri, A. R.; Zerai, B.; Ahmadi, G.; Kadambi, J. R.; Saylor, B. Z.; ***Oliver, M.***; Bromhal, G. S.; Smith, D. H.
CORPORATE SOURCE: National Energy Technology Laboratory, U.S. Department of Energy, Morgantown, WV, 26507-0880, USA
SOURCE: Advances in Water Resources (2005), 28(12), 1267-1279 CODEN: AWREDI; ISSN: 0309-1708
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB For single-phase flow through a network model of a porous medium, we report (1) solns. of the Navier-Stokes equation for the flow, (2) micro-***particle*** imaging velocimetry (PIV) measurements of local flow velocity vectors in the "pores throats" and "pore bodies," and (3) comparisons of the computed and measured velocity vectors. A "two-dimensional" network of cylindrical pores and parallelepiped connecting throats was constructed and used for the measurements. All pore bodies had the same dimensions, but three-different (square cross-section) pore-throat sizes were randomly distributed throughout the network. An unstructured computational grid for flow through an identical network was developed and used to compute the local pressure gradients and flow vectors for several different (macroscopic) flow rates. Numerical solution results were compared with the exptl. data, and good agreement was

found. Cross-over from Darcy flow to inertial flow was observed in the computational results, and the permeability and inertia coeffs. of the network were estimated The development of inertial flow was seen as a "two-step" process: (1) recirculation zones appeared in more and more pore bodies as the flow rate was increased, and (2) the strengths of individual recirculation zones increased with flow rate. Because each pore-throat and pore-body dimension is known, in this approach an exptl. (and/or computed) local Reynolds number is known for every location in the porous medium at which the velocity was measured (and/or computed).
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:631313 CAPLUS
DOCUMENT NUMBER: 143:137832
TITLE: Characterization of micro-scale flow through porous media during geologic sequestration of CO2
AUTHOR(S): Zerai, B.; ***Oliver, M.***; Saylor, B. Z.; Kadambi, J. R.
CORPORATE SOURCE: Department of Geological Sciences, Case Western Reserve University, Cleveland, OH, 44106-7216, USA
SOURCE: Proceedings - Annual International Pittsburgh Coal Conference (2003), 20th, 1448-1449
CODEN: PICNE4; ISSN: 1075-7961
PUBLISHER: Pittsburgh Coal Conference, University of Pittsburgh
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
AB To simulate transport of sequestered CO2 within deep sedimentary rocks, a micro-***Particle*** Image Velocimetry system is used in conjunction with refractive index matching to map two-dimensional micro-scale flow for fixed pore size (2.5 mm) and variable throat width and depth (200-1000 μm). Fluid velocity vectors were successfully obtained for single-phase flow tests; future expts. will use the technique to study interface motion and fluid velocities for two-phase flow.

L43 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:41245 CAPLUS
DOCUMENT NUMBER: 140:82284
TITLE: Pharmaceutical ***suspension aerosol*** model systems
INVENTOR(S): ***Jinks, Philip A.***
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 15 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004004685	A1	20040115	WO 2003-US18529	20030612

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,

KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003243522	A1	20040123	AU 2003-243522	20030612
PRIORITY APPLN. INFO.:			GB 2002-15749 A	20020709
			WO 2003-US18529 W	20030612

AB The invention relates to the use of pharmaceutical ***suspension aerosol*** systems comprising ***particles*** of a pigment dispersed in a propellant, for screenings of formulation and/or hardware system technol. for ***aerosol*** administration. Thus, model formulations wee prepared by using micronized Brilliant Blue, α-lactose monohydrate dispersed in the HFA 134a propellant. There was no separation of the dye and lactose into 2 sep. layers. The formulation allows a visual assessment of the flocculation process.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:836814 CAPLUS
DOCUMENT NUMBER: 139:328357
TITLE: ***Formoterol*** and mometasone ***aerosol*** formulations
INVENTOR(S): Slowey, Alexander D.; Boswell, Susannah C.; ***Jinks, Philip A.***
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003086350	A1	20031023	WO 2003-US8710	20030321
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003225915	A1	20031027	AU 2003-225915	20030321
EP 1492499	A1	20050105	EP 2003-746547	20030321
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005255049	A1	20051117	US 2004-509184	20040924
PRIORITY APPLN. INFO.:			GB 2002-7906 A	20020405
			WO 2003-US8710 W	20030321

AB A pharmaceutical ***aerosol*** formulation comprises ***particles*** of (a) ***formoterol*** or a pharmaceutically acceptable salt, solvate or physiol. functional derivative thereof and (b) mometasone or a pharmaceutically acceptable salt, solvate, or physiol. functional derivative thereof dispersed in a propellant selected from the group consisting of 1,1,1,2-tetrafluoroethane, 1,1,1,2,3,3,3-heptafluoropropane and a mixture thereof, and a bulking agent having a mass median diameter of less than 1

μm. For example, an ***aerosol*** contained ***formoterol*** fumarate 0.132, mometasone furoate 1, lactose hydrate 1.98, oleic acid 0.0606, ethanol 24.22, and HFA 134a 1183.6074 mg/mL.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:836813 CAPLUS
DOCUMENT NUMBER: 139:328356
TITLE: ***Aerosols*** containing ***formoterol*** and progesterone derivatives
INVENTOR(S): ***Oliver, Martin J.; Jinks, Philip A.***
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003086349	A1	20031023	WO 2003-US10285	20030401
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2481187	AA	20031023	CA 2003-2481187	20030401
AU 2003262146	A1	20031027	AU 2003-262146	20030401
EP 1492500	A1	20050105	EP 2003-746589	20030401
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005529102	T2	20050929	JP 2003-583372	20030401
US 2005207984	A1	20050922	US 2005-510147	20050324
PRIORITY APPLN. INFO.:			GB 2002-7899 A	20020405
			WO 2003-US10285 W	20030401

AB Disclosed is a pharmaceutical ***aerosol*** formulation comprising ***particles*** of ***formoterol*** or its pharmaceutically acceptable salt, solvate or physiol. functional derivative and ***ciclesonide*** or derivs. thereof. A propellant is selected from 1,1,1,2-tetrafluoroethane, 1,1,1,2,3,3,3-heptafluoropropane and a mixture thereof. For example, an ***aerosol*** was made with micronized ***formoterol*** fumarate dihydrate and ***ciclesonide*** as the active ingredient and HFA134a as the propellant.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:294638 CAPLUS
DOCUMENT NUMBER: 137:55666
TITLE: Residual gas analysis of SF6 and N2 - SF6 gas mixtures after low current disconnector switching
AUTHOR(S): Yuan, W. D.; Srigengan, B.; Spencer, J. W.; Taylor,

S.; Lopez-Roldan, J.; ***Oliver, M.***
CORPORATE SOURCE: Centre for Intelligent Monitoring Systems. Dept. of Electrical Engineering and Electronics, The University of Liverpool, Liverpool, L69 3GJ, UK
SOURCE: Proceedings of the International Conference on Gas Discharges and Their Applications, 13th, Glasgow, United Kingdom, Sept. 3-8, 2000 (2000), Meeting Date 2000, Volume 2, 860-863. Editor(s): MacGregor, Scott J. University of Strathclyde, Dep. of Electronic and Electrical Engineering: Glasgow, UK.
CODEN: 69CLXZ; ISBN: 0-9539105-0-4
DOCUMENT TYPE: Conference
LANGUAGE: English
AB Sulfur Hexafluoride (SF6) and a mixture of 80% Nitrogen (N2) and 20% SF6 were subjected to three different elec. discharge conditions. These discharges were chosen to simulate the elec. conditions within a gas insulated disconnector switch during its opening and closing operations. A residual gas analyzer was used to determine the steady state pos. ion composition of these gases. The preliminary anal. of the results presented in this paper focuses mainly on a few chemical components, which are related to the SF6. The results show that adding N2 to SF6 affects the production of some of the S and F fragments but more importantly there is a significant change in the appearance of the solid ***particles*** produced.
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:293417 CAPLUS
DOCUMENT NUMBER: 136:315003
TITLE: Particulate bulking agents for medicinal ***aerosol*** formulations
INVENTOR(S): ***Jinks, Philip A.***; McKenzie, Lesley; Lister, James T.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002030394	A2	20020418	WO 2001-US30575	20011001
WO 2002030394	A3	20030130		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2425035	AA	20020418	CA 2001-2425035	20011001
AU 2002011311	A5	20020422	AU 2002-11311	20011001
EP 1324749	A2	20030709	EP 2001-979338	20011001
EP 1324749	B1	20060315		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

JP 2004510808	T2	20040408	JP 2002-533837		20011001
NZ 525054	A	20041126	NZ 2001-525054		20011001
CN 1635870	A	20050706	CN 2001-816917		20011001
AT 320242	E	20060415	AT 2001-979338		20011001
NO 2003001597	A	20030530	NO 2003-1597		20030408
US 2004081627	A1	20040429	US 2003-398335		20031006
PRIORITY APPLN. INFO.:			GB 2000-24711	A	20001009
			GB 2001-22512	A	20010918
			WO 2001-US30575	W	20011001

AB Use of particulate bulking agents having an extremely small mass median diameter of less than one micron, preferably less than 300 nm, in pharmaceutical ***aerosol*** formulations comprising a ***suspension*** of drug ***particles*** in a propellant. Examples of bulking agents include ascorbic acid, saccharides, polysaccharides, amino acids, organic and inorg. salts, urea, and propyliodone. α-Lactose monohydrate was micronized and dispersed in anhydrous ethanol and homogenized.

L43 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	1998:776657 CAPLUS
DOCUMENT NUMBER:	130:29240
TITLE:	Medicinal ***aerosol*** products
INVENTOR(S):	***Oliver, Martin J.***; Fatania, Kanu M.; Scott, John S.; Muller, Helgert
PATENT ASSIGNEE(S):	Minnesota Mining and Manufacturing Co., USA
SOURCE:	PCT Int. Appl., 20 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9852542	A1	19981126	WO 1998-US10155	19980518
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6120752	A	20000919	US 1998-76958	19980513
CA 2290521	AA	19981126	CA 1998-2290521	19980518
AU 9874962	A1	19981211	AU 1998-74962	19980518
AU 726835	B2	20001123		
EP 983058	A1	20000308	EP 1998-922409	19980518
EP 983058	B1	20030730		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 9902863	T2	20000522	TR 1999-9902863	19980518
BR 9809448	A	20000620	BR 1998-9448	19980518
NZ 500874	A	20010928	NZ 1998-500874	19980518
JP 2001526685	T2	20011218	JP 1998-550494	19980518
AT 245966	E	20030815	AT 1998-922409	19980518
PT 983058	T	20031231	PT 1998-922409	19980518

ES 2205491	T3	20040501	ES 1998-922409		19980518
SK 283930	B6	20040504	SK 1999-1576		19980518
IL 132738	A1	20040620	IL 1998-132738		19980518
US 6264923	B1	20010724	US 1999-440797		19991115
NO 9905667	A	19991118	NO 1999-5667		19991118
MX 9910646	A	20000430	MX 1999-10646		19991118
BG 64268	B1	20040831	BG 1999-103902		19991119
HK 1027027	A1	20040716	HK 2000-105446		20000830
PRIORITY APPLN. INFO.:			GB 1997-10496	A	19970521
			GB 1998-3990	A	19980225
			US 1998-76958	A3	19980513
			WO 1998-US10155	W	19980518

AB A pharmaceutical ***aerosol*** formulation suitable for oral and/or nasal inhalation including the anti-inflammatory drug ***ciclesonide***, hydrofluorocarbon propellants such as HFC 134a and/or 227, and ethanol in an amount sufficient to solubilize the ***ciclesonide*** (and various optional ingredients, such as surfactant). The formulations exhibit very desirable phys. and chemical stability, as well as excellent delivery characteristics. A composition was prepared containing ***ciclesonide*** 1.000, ethanol (5%) 67.800, and Propellant 227 1287.200 mg/mL.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:208408 CAPLUS
DOCUMENT NUMBER: 128:275107
TITLE: Medicinal ***aerosol*** formulations comprising budesonide
INVENTOR(S): Govind, Nayna; ***Jinks, Philip A.***; Ross, Danna L.; Ward, Gary H.
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA
SOURCE: PCT Int. Appl., 14 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9813031	A2	19980402	WO 1997-US16869	19970923
WO 9813031	A3	19980827		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
ZA 9708303	A	19990315	ZA 1997-8303	19970915
CA 2266431	AA	19980402	CA 1997-2266431	19970923
AU 9744926	A1	19980417	AU 1997-44926	19970923
AU 732985	B2	20010503		
EP 932397	A2	19990804	EP 1997-943453	19970923
EP 932397	B1	20060315		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
BR 9712125	A	19990831	BR 1997-12125	19970923
JP 2001501209	T2	20010130	JP 1998-515789	19970923

AT 320246	E	20060415	AT 1997-943453	19970923
US 6039932	A	20000321	US 1997-937520	19970925
NO 9901407	A	19990323	NO 1999-1407	19990323
KR 2000048646	A	20000725	KR 1999-702589	19990326
PRIORITY APPLN. INFO.:			GB 1996-20187	A 19960927
			US 1996-32092P	P 19961203
			WO 1997-US16869	W 19970923

AB A pharmaceutical ***aerosol*** formulation, suitable for administration by oral or nasal inhalation, contains a ***suspension*** of particulate budesonide, hydrofluoroalkane propellant and, optionally, addnl. hydrofluoroalkane propellants, surfactant selected from oleic acid, sorbitan oleate and lecithin, and adjuvant having a Kauri-butanol value of at least 10. A stable ***aerosol*** contained particulate budesonide 0.316, oleic acid 0.005, ethanol 1, HFA 227 29.902, and HFA 134A 68.777 %.

L43 ANSWER 13 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:13829 CAPLUS
DOCUMENT NUMBER: 128:79994
TITLE: Medicinal ***aerosol*** formulations containing ***formoterol***
INVENTOR(S): ***Oliver, Martin J.***; Paling, Simon G.; ***Jinks, Philip A.***; Jaiswal, Sukhbinder K.
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Company, USA; Oliver, Martin J.; Paling, Simon G.; Jinks, Philip A.; Jaiswal, Sukhbinder K.
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9747286	A1	19971218	WO 1997-US9471	19970602
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
ZA 9704546	A	19981123	ZA 1997-4546	19970523
CA 2257841	AA	19971218	CA 1997-2257841	19970602
AU 9733739	A1	19980107	AU 1997-33739	19970602
AU 726382	B2	20001102		
EP 934057	A1	19990811	EP 1997-929756	19970602
EP 934057	B1	20040915		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
NZ 333202	A	20000623	NZ 1997-333202	19970602
JP 2000513340	T2	20001010	JP 1998-501656	19970602
EP 1400239	A1	20040324	EP 2003-14565	19970602
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
AT 275940	E	20041015	AT 1997-929756	19970602
PT 934057	T	20041231	PT 1997-929756	19970602
ES 2229366	T3	20050416	ES 1997-929756	19970602
US 6054488	A	20000425	US 1998-88871	19980602
NO 9805720	A	19990211	NO 1998-5720	19981207

NO 320403	B1	20051128		
PRIORITY APPLN. INFO.:			GB 1996-12297	A 19960611
			EP 1997-929756	A3 19970602
			US 1997-48233P	P 19970602
			WO 1997-US9471	W 19970602

AB A pharmaceutical ***suspension*** formulation suitable for ***aerosol*** administration having from 0.0025 to 0.1 weight/weight of micronized ***formoterol*** (I), or an acid addition salt thereof, from 0.1 to 5.0 weight/weight ethanol, HFA 134a, HFA 227 or a mixture of HFA 227 and HFA 134a, and optionally a surfactant other than a monoacetylated or diacetylated monoglyceride. The formulation being further characterized in that it exhibits substantially no growth in ***particle*** size or change in crystal morphol. of the drug over a prolonged period, is substantially and readily redispersible, and upon redispersion does not flocculate so quickly as to prevent reproducible dosing of the drug. An ***aerosol*** formulation contained I 0.010, ethanol 2.500, HFA-227 48.745, and HFA 134a 48.745%.

L43 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:675489 CAPLUS
DOCUMENT NUMBER: 127:268085
TITLE: Detecting ***particles*** in ***suspension***
INVENTOR(S): ***Jinks, Philip Anthony***; Bent, Robert
PATENT ASSIGNEE(S): Jinks, Philip Anthony, UK; Bent, Robert
SOURCE: Brit. UK Pat. Appl., 7 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2308184	A1	19970618	GB 1995-25426	19951213
PRIORITY APPLN. INFO.:			GB 1995-25426	19951213

AB Apparatus for the characterization of ***suspensions***, in particular ***suspensions*** of metered dose inhaler formulations, consists of one or more height adjustable aligned light emitter and detector probes. The probes are designed to create a narrow light beam across the sample pathway where a test vial is inserted in a holder. Preferably photoemitters and photodetectors are situated remotely from the sensing zone and connected to the probes by fiber-optic cable. The voltage signals from the photodetectors are processed through analog to digital converters and the digital information is then sampled over exptl. run times of selectable duration using custom written software, to create files of 1000 data points. The files are then processed using readily available software to provide quant. data on ***suspension*** flocculation and creaming or sedimentation characteristics. Knobs which are turned to raise and lower the probes also activate digital encoders connected to a digital display of vertical movement.

L43 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:642313 CAPLUS
DOCUMENT NUMBER: 125:271045
TITLE: Vertical distribution of zooplankton > 39 μm in relation to the physical environment off the west coast of South Island, New Zealand
AUTHOR(S): Bradford-Grieve, J. M.; Murdoch, R. C.; James, M. R.; ***Oliver, M.***; Hall, J.

CORPORATE SOURCE: National Institute Water and Atmospheric Research Ltd, Wellington, N. Z.
SOURCE: New Zealand Journal of Marine and Freshwater Research (1996), 30(3), 285-300
CODEN: NZJMBS; ISSN: 0028-8330
PUBLISHER: SIR
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Data sets of pump-sampled zooplankton > 39 μm were obtained for early August 1987, late July 1988, and late June 1990, along with environmental data in 1987 and 1990, off the west coast of South Island, New Zealand. The environmental circumstances favorable to zooplankton species known to be food for hoki larvae (Macruronus novaezelandiae) were investigated. We found that a major proportion of the vertical distribution of the epipelagic zooplankton off Westland is influenced by passive interaction with phys. processes against a background of the distribution of autotrophic ***particles***. Multivariate anal. classified stations into continental slope (Group I), outer-mid shelf (Group II), and neritic (Group III) stations/depths. Contrasting with other stations in Group I (the habitat of hoki larvae), the phys. conditions of one station differed in that winter mixing had hardly begun (indicated by relatively low nutrients), concns. of 20-200 μm autotrophic ***particles*** were low, as were concns. of copepod nauplii, and Calocalanus spp. Deep mixing in early winter, in subtropical water along the outer shelf and slope of the west coast of South Island, may be necessary to promote the growth of zooplankton species important in the diet of hoki. This promotion of copepod growth may have been mediated through the growth of autotrophic ***particles*** > 20 μm in a higher nutrient environment and/or the changing light environment which could have differentially favored the growth of various phytoplankton size fractions, and therefore their predators. The 1990 yr class of hoki did not make a strong contribution to the fishery for adults. In 1990 the onset of winter mixing (from model results) occurred 2 wk later than in 1987 and 1988, years when hoki year classes contributed strongly to the fishery.

L43 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:480267 CAPLUS
DOCUMENT NUMBER: 119:80267
TITLE: Pharmaceutical ***aerosol*** formulations containing hydrofluorocarbons
INVENTOR(S): Schultz, Robert K.; Schultz, David W.; ***Oliver, Martin J.***; Moris, Robert A.; ***Jinks, Philip A.***
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9311747	A1	19930624	WO 1992-US10587	19921211
W: AU, CA, JP, NZ				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9332728	A1	19930719	AU 1993-32728	19921211
AU 675633	B2	19970213		
EP 617610	A1	19941005	EP 1993-901414	19921211

EP 617610	B1	19970319			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
JP 07502275	T2	19950309	JP 1992-511027		19921211
EP 717987	A2	19960626	EP 1996-200109		19921211
EP 717987	A3	19960703			
EP 717987	B1	20010829			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
AT 150296	E	19970415	AT 1993-901414		19921211
ES 2099415	T3	19970516	ES 1993-901414		19921211
CA 2126244	C	20000926	CA 1992-2126244		19921211
EP 1086688	A1	20010328	EP 2000-123885		19921211
EP 1086688	B1	20040303			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE					
AT 204743	E	20010915	AT 1996-200109		19921211
ES 2159678	T3	20011016	ES 1996-200109		19921211
PT 717987	T	20011228	PT 1996-200109		19921211
CA 2320129	C	20030211	CA 1992-2320129		19921211
AT 260641	E	20040315	AT 2000-123885		19921211
PT 1086688	T	20040630	PT 2000-123885		19921211
ES 2216800	T3	20041101	ES 2000-123885		19921211
US 6743413	B1	20040601	US 1995-455280		19950531
AU 9712342	A1	19970320	AU 1997-12342		19970128
AU 709052	B2	19990819			
GR 3036467	T3	20011130	GR 2001-401322		20010830
US 2003103907	A1	20030605	US 2002-214186		20020808
US 2004013611	A1	20040122	US 2003-616193		20030709
JP 2004143183	A2	20040520	JP 2004-3462		20040108
US 2004197273	A1	20041007	US 2004-820817		20040409
PRIORITY APPLN. INFO.:			US 1991-809791	A	19911218
			US 1991-810401	A	19911218
			US 1992-878039	A	19920504
			CA 1992-2126244	A3	19921211
			EP 1993-901414	A3	19921211
			EP 1996-200109	A3	19921211
			JP 1993-511027	A3	19921211
			WO 1992-US10587	A	19921211
			US 1995-455280	A3	19950531
			US 1995-455874	A1	19950531
			US 1999-362696	B1	19990729

AB Pharmaceutical ***aerosol*** formulations containing hydrofluorocarbon (HFC) 134a and 227 are disclosed. Thus, 0.02% salmeterol ***aerosol suspension*** in HFC 134a was prepared

L43 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:240982 CAPLUS
DOCUMENT NUMBER: 118:240982
TITLE: Medicinal ***aerosols*** containing butane and/or dimethyl ether as propellants
INVENTOR(S): ***Oliver, Martin J.; Jinks, Philip A.***
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA
SOURCE: PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 9304671	A1	19930318	WO 1992-US7379	19920828
W: AU, CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
AU 9225738	A1	19930405	AU 1992-25738	19920828
EP 602181	A1	19940622	EP 1992-920106	19920828
R: DE, FR, GB, IT, SE				
PRIORITY APPLN. INFO.:			GB 1991-18830 A	19910903
			WO 1992-US7379 A	19920828

AB ***Aerosols*** which are substantially free of chlorofluorocarbons, comprise a drug, a glycerol phosphatide, and a propellant selected from butane, di-Me ether, and mixts. thereof. Solubility of the drugs in the propellant is enhanced in the presence of glycerol phosphatide. Thus, a stable ***aerosol*** solution contained albuterol 2.00, Lipoid S100 (phsophatidylcholine) 14.00, and butane 563.00 mg/mL.

L43 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:435752 CAPLUS
DOCUMENT NUMBER: 115:35752
TITLE: Surfactant-coated medicinal powders in ***aerosol*** formulations
INVENTOR(S): Greenleaf, David John; Purewal, Tarlochan Singh; ***Jinks, Philip Anthony***
PATENT ASSIGNEE(S): Riker Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9104011	A1	19910404	WO 1990-GB1454	19900920
W: AU, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
AU 9064097	A1	19910418	AU 1990-64097	19900920
AU 648994	B2	19940512		
EP 493437	A1	19920708	EP 1990-913839	19900920
EP 493437	B1	19950802		
EP 493437	B2	19990811		
R: DE, FR, GB, IT				
JP 05500664	T2	19930212	JP 1990-512923	19900920
JP 2915574	B2	19990705		
US 5348730	A	19940920	US 1993-838747	19930317
PRIORITY APPLN. INFO.:			GB 1989-21222 A	19890920
			WO 1990-GB1454 A	19900920

AB A self-propelling, powder-dispensing ***aerosol*** composition comprises > 0.0001 weight % finely-divided solid medicament coated with a nonperfluorinated surface-active dispersing agent which constitutes > 0.0001 weight % of the coated solid material, and suspended in an ***aerosol*** propellant in which the nonperfluorinated surface-active dispersing agent is substantially insol. Nonfluorinated surfactants which are insol. in propellants, such as Propellant 134a, may be used to prepare stable dispersions of powdered medicament provided the medicament is pre-coated with the surfactant prior to admixt. with propellant. Micronized beclomethasone dipropionate was coated with Epikuron 200 (0.001 weight/volume %) in dehumidified conditions and 69 mg of the coated drug was added to Al ***aerosol*** cans. An ***aerosol*** valve was crimped into place before addition of Propellant 134a (7.9 g). Drug

deposition potential was 0.64 (compared to >1.3 for admixed drug and surfactant).

L43 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:125881 CAPLUS
DOCUMENT NUMBER: 106:125881
TITLE: Drug-containing chlorofluorocarbon ***aerosol*** propellent formulations
INVENTOR(S): ***Jinks, Philip Anthony***; Bell, Alexander; Fischer, Franz Xaver
PATENT ASSIGNEE(S): Riker Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8604233	A1	19860731	WO 1986-GB1	19860102
W: AU, DK, FI, HU, JP, KR, NO, US				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
IL 77467	A1	19901223	IL 1985-77467	19851227
AU 8653064	A1	19860813	AU 1986-53064	19860102
AU 577663	B2	19880929		
EP 209547	A1	19870128	EP 1986-900606	19860102
EP 209547	B1	19900912		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 62501906	T2	19870730	JP 1986-500323	19860102
JP 08011725	B4	19960207		
HU 42938	A2	19870928	HU 1986-935	19860102
HU 196303	B	19881128		
AT 56358	E	19900915	AT 1986-900606	19860102
ZA 8600045	A	19861029	ZA 1986-45	19860103
DD 241422	A5	19861210	DD 1986-286139	19860113
ES 550891	A1	19871016	ES 1986-550891	19860115
CA 1264297	A1	19900109	CA 1986-499583	19860115
DK 8604403	A	19860915	DK 1986-4403	19860915
DK 175346	B1	20040830		
FI 8603730	A	19860915	FI 1986-3730	19860915
FI 90014	B	19930915		
FI 90014	C	19931227		
NO 8603683	A	19860915	NO 1986-3683	19860915
NO 172727	B	19930524		
NO 172727	C	19930901		
US 4814161	A	19890321	US 1986-915971	19861110
PRIORITY APPLN. INFO.:			GB 1985-1015 A	19850116
			EP 1986-900606 A	19860102
			WO 1986-GB1 A	19860102

AB Glycerol phosphatides, preferably phosphatidylcholines, are mixed with ***aerosol*** propellants, preferably Propellant 11, at 0.01:100 - 20:100 ratios of phosphatide to propellant, for more effective solubilization of drugs in ***aerosol*** formulations. Thus, a formulation contained Propellant 11 270, Propellant 12 1080, epikuron 200 14, and beclomethasone dipropionate 1 mg/mL.

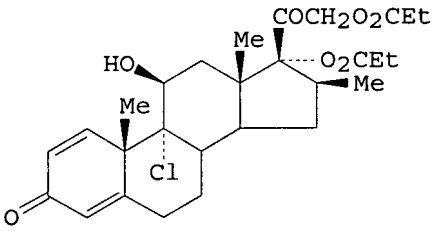
L43 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:614099 CAPLUS

DOCUMENT NUMBER: 105:214099
TITLE: Physically modified beclomethasone dipropionate suitable for use in ***aerosols***
INVENTOR(S): ***Jinks, Philip Anthony***
PATENT ASSIGNEE(S): Riker Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8603750	A1	19860703	WO 1985-GB588	19851216
W: AU, DK, JP, KR, NO, US				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AU 8653087	A1	19860722	AU 1986-53087	19851216
AU 587010	B2	19890803		
EP 205530	A1	19861230	EP 1986-900210	19851216
EP 205530	B1	19890222		
R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
JP 62501706	T2	19870709	JP 1986-500413	19851216
JP 07014880	B4	19950222		
JP 07014880	B4	19950222	JP 1985-500413	19851216
ZA 8509631	A	19870527	ZA 1985-9631	19851217
ES 550076	A1	19861216	ES 1985-550076	19851218
CA 1253806	A1	19890509	CA 1985-498011	19851218
DK 8603917	A	19860818	DK 1986-3917	19860818
NO 8603321	A	19860818	NO 1986-3321	19860818
NO 170516	B	19920720		
NO 170516	C	19921028		
US 4810488	A	19890307	US 1986-902411	19860818

PRIORITY APPLN. INFO.: GB 1984-32063 A 19841219
WO 1985-GB588 A 19851216

GI



I

AB A stable ***aerosol*** formulation of beclomethasone dipropionate (I) is prepared by contacting I with C1-5 alc., reducing the ***particle*** size of the crystalline solvate formed to <10μ and dispersing the solvate in chlorofluorocarbon propellants. Suitable propellant mixts. generally comprise combinations of Propellants 11 (CCl3F), 12 (CCl2F2) and 114 (C2Cl2F4). Thus, 25 g I was dissolved in 200 mL iso-ProH, and the solution placed at 0° for 24 h. The resulting solid was filtered and dried, and the product powdered and micronized in a Trost fluid energy mill. The solvate (4.441 g) was dispersed in 300 g Propellant 11 containing 2.221 g

sorbitan trioleate. This ***suspension*** was added to 854 g Propellant 114 and 4839 g Propellant 12 in a scale ***aerosol*** cold-filling vessel at -60 °. The ***suspension*** was filled into 375 Al vials using a fill weight of 16 g/vial. After 6 mo no significant change had occurred in the quality of the ***suspensions***.

L43 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1973:437599 CAPLUS
DOCUMENT NUMBER: 79:37599
TITLE: Deuterons acceleration with the Saturne linac
AUTHOR(S): Chamouard, P. A.; Lefebvre, J. M.; ***Oliver, M.***; Prome, M.
CORPORATE SOURCE: C.E.N., Saclay, Fr.
SOURCE: Report (1972), LA-5115, 326-29
From: Nucl. Sci. Abstr. 1973, 27(9), 2044b
DOCUMENT TYPE: Report
LANGUAGE: English
AB The recent improvements on the title linac d beam allow the acceleration in the synchrotron of 9 + 1011 d at 4 msec after radio frequency (rf) capture and 8 + 1011 d of maximum energy. Another conditioning should allow to tolerate a higher rf field, hence increasing the linac transmission. New optics well adapted to d beams are under study for the preinjector and the transport system. They should also lead to an increase of the intensity at the entrance of the linac. Measurements made at Saturne injection show that the space charge limitation is not reached; therefore the number of accelerated ***particles*** will be directly proportional to the current delivered by the linac.

=> d que l38
L33 1 SEA FILE=REGISTRY ABB=ON PLU=ON 126544-47-6
L38 167 SEA FILE=CAPLUS ABB=ON PLU=ON L33

=> d ibib abs hitstr l38 159-167

L38 ANSWER 159 OF 167 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:29178 CAPLUS
DOCUMENT NUMBER: 132:59368
TITLE: The new topical steroid ciclesonide is effective in the treatment of allergic rhinitis
AUTHOR(S): Schmidt, Bernhard M. W.; Timmer, Wolfgang; Georgens, Anette C.; Hilt, Monika; Mattinger, Catherine; Wurst, Wilhelm; Hormann, Karl; Wehling, Martin
CORPORATE SOURCE: Institute of Clinical Pharmacology, Mannheim University Hospital, Ruprecht-Karls-University Heidelberg, Mannheim, D-68167, Germany
SOURCE: Journal of Clinical Pharmacology (1999), 39(10), 1062-1069
CODEN: JCPCBR; ISSN: 0091-2700
PUBLISHER: Sage Publications
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A randomized, placebo-controlled, double-blind crossover study was performed to investigate the efficacy of ciclesonide nasal spray in allergic rhinitis at the dose level of 200 μg per nostril. Twenty-four subjects (13 males, 11 females; median age: 28 yr) with a history of allergic rhinitis but free of symptoms at screening entered the study.

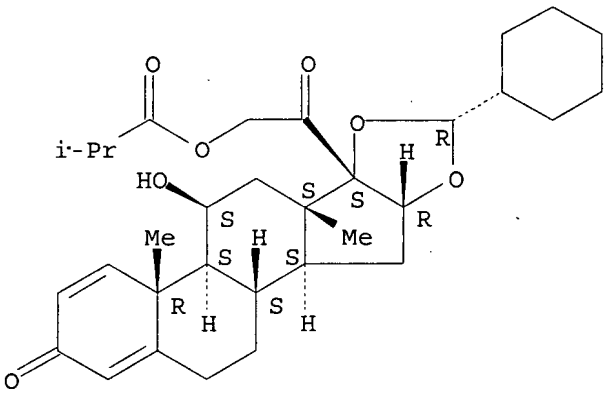
Ciclesonide and placebo were given for 7 days each with a washout period of at least 14 days in between. In both treatment periods, controlled intranasal allergen provocation with pollen exts. was performed on the 2 days before start of treatment (days-2 and-1) and on all treatment days (days 1 to 7) about 2 h after administration of the study medication. At 5 and 30 min after each allergen provocation, rhinal airflow was measured by anterior rhinomanometry, and the subjective symptoms of obstruction, itching, and rhinorrhea were assessed by means of a standardized visual analog scale. Rhinal airflow improved significantly from day 5, while the subjective symptom of obstruction improved from day 2. Itching and rhinorrhea also improved significantly. The local and systemic tolerability of ciclesonide nasal spray was excellent. The results of this study clearly indicate that the new topical steroid ciclesonide is effective in the treatment of allergic rhinitis without producing local or systemic side effects.

IT ***126544-47-6***, Ciclesonide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(new topical steroid ciclesonide is effective in treatment of allergic rhinitis)

RN 126544-47-6 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 160 OF 167 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:613669 CAPLUS

DOCUMENT NUMBER: 131:223969

TITLE: Method and means for treating glomerulonephritis using glucocorticoids having a first pass metabolism in the liver

INVENTOR(S): Hallgren, Roger; Fellstrom, Bengt

PATENT ASSIGNEE(S): Pharmalink Baslakemedel AB, Swed.

SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9947144	A1	19990923	WO 1999-SE406	19990316
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
SE 9800905	A	19990918	SE 1998-905	19980317
SE 514128	C2	20010108		
US 6239120	B1	20010529	US 1999-266023	19990311
CA 2317796	AA	19990923	CA 1999-2317796	19990316
AU 9929686	A1	19991011	AU 1999-29686	19990316
AU 749199	B2	20020620		
EP 1056461	A1	20001206	EP 1999-910932	19990316
EP 1056461	B1	20020918		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9908838	A	20001212	BR 1999-8838	19990316
JP 2002506824	T2	20020305	JP 2000-536384	19990316
AT 224195	E	20021015	AT 1999-910932	19990316
ES 2181407	T3	20030216	ES 1999-910932	19990316

PRIORITY APPLN. INFO.:	SE 1998-905	A	19980317
	US 1998-80274P	P	19980401
	WO 1999-SE406	W	19990316

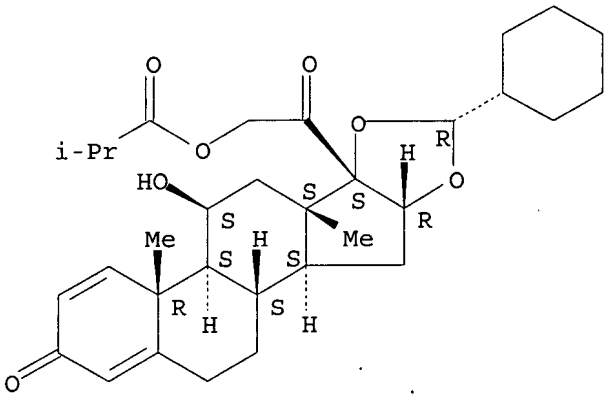
AB The invention provides the use of a glucocorticoid having a first pass metabolism in the liver of at least 90 % as active substance, for the manufacturing of a medicament for oral or rectal administration in the treatment of glomerulonephritis by releasing the active substance in the intestine. The invention also provides a method for treatment of glomerulonephritis in a native kidney or a kidney transplant with the glucocorticoid as defined above. The invention also comprises a composition comprising the active substance and a pharmaceutically acceptable carrier, adjuvant or diluent designed for oral or rectal administration.

IT ***126544-47-6***, Ciclesonide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method and composition for treating glomerulonephritis in a native kidney or a kidney transplant using glucocorticoids having a first pass metabolism in liver)

RN 126544-47-6 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 161 OF 167 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:344853 CAPLUS
DOCUMENT NUMBER: 130:357226
TITLE: Glucocorticosteroids, their sterilization, and therapeutic use
INVENTOR(S): Karlsson, Ann-kristin; Larrivee-Elkins, Cheryl; Molin, Ove
PATENT ASSIGNEE(S): Astra Aktiebolag, Swed.
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9925359	A1	19990527	WO 1998-SE2039	19981111
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
ZA 9810217	A	19990514	ZA 1998-10217	19981109
CA 2310222	AA	19990527	CA 1998-2310222	19981111
AU 9912666	A1	19990607	AU 1999-12666	19981111
AU 744992	B2	20020307		
EP 1032396	A1	20000906	EP 1998-956058	19981111
EP 1032396	B1	20040218		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9814118	A	20001003	BR 1998-14118	19981111
JP 2001523638	T2	20011127	JP 2000-520792	19981111
NZ 504273	A	20021025	NZ 1998-504273	19981111
AT 259642	E	20040315	AT 1998-956058	19981111
PT 1032396	T	20040630	PT 1998-956058	19981111

ES 2214749	T3	20040916	ES 1998-956058		19981111
IL 136086	A1	20050517	IL 1998-136086		19981111
US 6392036	B1	20020521	US 1999-230781		19990129
NO 2000002470	A	20000705	NO 2000-2470		20000512
HK 1030549	A1	20040903	HK 2001-101540		20010302
US 2002065256	A1	20020530	US 2001-993669		20011127
PRIORITY APPLN. INFO.:			SE 1997-4186	A	19971114
			WO 1998-SE2039	W	19981111
			US 1999-230781	A1	19990129

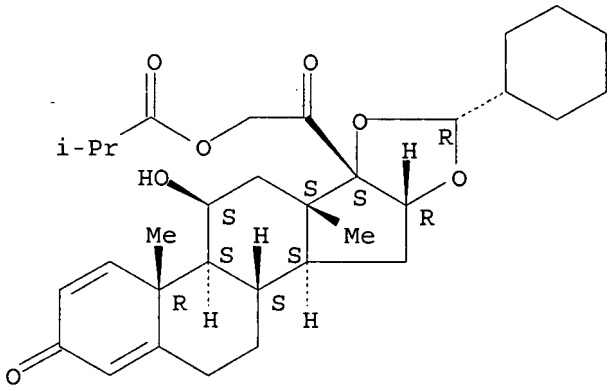
AB The invention provides a process for the sterilization of a powdered form of a glucocorticosteroid, sterile glucocorticosteroids, sterile formulations containing glucocorticosteroids and use thereof in the treatment of an allergic and/or inflammatory condition of the nose or lungs. Budesonide was sterilized at 110° for 3 h and 10 min and formulated into suspension containing micronized budesonide 0.125 mg, Na2EDTA 0.1 mg, NaCl 8.5 mg, Polysorbate 80 0.2 mg, anhydrous citric acid 0.28 mg, Na citrate 0.5 mg, and water to 1 mL.

IT ***126544-47-6***, Ciclesonide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sterilization and dosage forms of glucocorticoids for treatment of allergy and/or inflammation of nose or lungs)

RN 126544-47-6 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 162 OF 167 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	1998:776657 CAPLUS
DOCUMENT NUMBER:	130:29240
TITLE:	Medicinal aerosol products
INVENTOR(S):	Oliver, Martin J.; Fatania, Kanu M.; Scott, John S.; Muller, Helgert
PATENT ASSIGNEE(S):	Minnesota Mining and Manufacturing Co., USA
SOURCE:	PCT Int. Appl., 20 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9852542	A1	19981126	WO 1998-US10155	19980518
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6120752	A	20000919	US 1998-76958	19980513
CA 2290521	AA	19981126	CA 1998-2290521	19980518
AU 9874962	A1	19981211	AU 1998-74962	19980518
AU 726835	B2	20001123		
EP 983058	A1	20000308	EP 1998-922409	19980518
EP 983058	B1	20030730		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 9902863	T2	20000522	TR 1999-9902863	19980518
BR 9809448	A	20000620	BR 1998-9448	19980518
NZ 500874	A	20010928	NZ 1998-500874	19980518
JP 2001526685	T2	20011218	JP 1998-550494	19980518
AT 245966	E	20030815	AT 1998-922409	19980518
PT 983058	T	20031231	PT 1998-922409	19980518
ES 2205491	T3	20040501	ES 1998-922409	19980518
SK 283930	B6	20040504	SK 1999-1576	19980518
IL 132738	A1	20040620	IL 1998-132738	19980518
US 6264923	B1	20010724	US 1999-440797	19991115
NO 9905667	A	19991118	NO 1999-5667	19991118
MX 9910646	A	20000430	MX 1999-10646	19991118
BG 64268	B1	20040831	BG 1999-103902	19991119
HK 1027027	A1	20040716	HK 2000-105446	20000830

PRIORITY APPLN. INFO.:	GB 1997-10496	A	19970521
	GB 1998-3990	A	19980225
	US 1998-76958	A3	19980513
	WO 1998-US10155	W	19980518

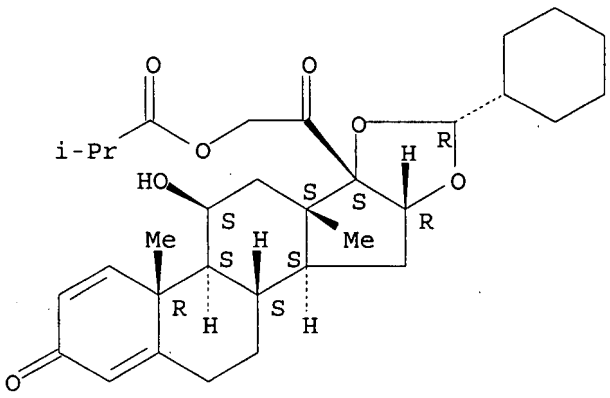
AB A pharmaceutical aerosol formulation suitable for oral and/or nasal inhalation including the anti-inflammatory drug ciclesonide, hydrofluorocarbon propellants such as HFC 134a and/or 227, and ethanol in an amount sufficient to solubilize the ciclesonide (and various optional ingredients, such as surfactant). The formulations exhibit very desirable phys. and chemical stability, as well as excellent delivery characteristics. A composition was prepared containing ciclesonide 1.000, ethanol (5%) 67.800, and
Propellant 227 1287.200 mg/mL.

IT ***126544-47-6***, Ciclesonide
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(ciclesonide aerosol)

RN 126544-47-6 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 163 OF 167 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:548517 CAPLUS
DOCUMENT NUMBER: 129:166237
TITLE: Fluorocarbon propellants for medical aerosol formulations
INVENTOR(S): Keller, Manfred; Herzog, Kurt
PATENT ASSIGNEE(S): Jago Pharma A.-G., Switz.
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9834595	A1	19980813	WO 1998-CH37		19980202
W: AU, CA, JP, NO, NZ, US					
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
CA 2280099	AA	19980813	CA 1998-2280099		19980202
CA 2280099	C	20051227			
AU 9856496	A1	19980826	AU 1998-56496		19980202
AU 718967	B2	20000504			
EP 1014943	A1	20000705	EP 1998-900837		19980202
EP 1014943	B1	20020619			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI					
NZ 337065	A	20010223	NZ 1998-337065		19980202
JP 2001511160	T2	20010807	JP 1998-533479		19980202
AT 219355	E	20020715	AT 1998-900837		19980202
PT 1014943	T	20021129	PT 1998-900837		19980202
ES 2178817	T3	20030101	ES 1998-900837		19980202
ZA 9800937	A	19980806	ZA 1998-937		19980205
NO 9903773	A	19991004	NO 1999-3773		19990804
US 6461591	B1	20021008	US 1999-355883		19990804
PRIORITY APPLN. INFO.:			CH 1997-248	A	19970205
			WO 1998-CH37	W	19980202

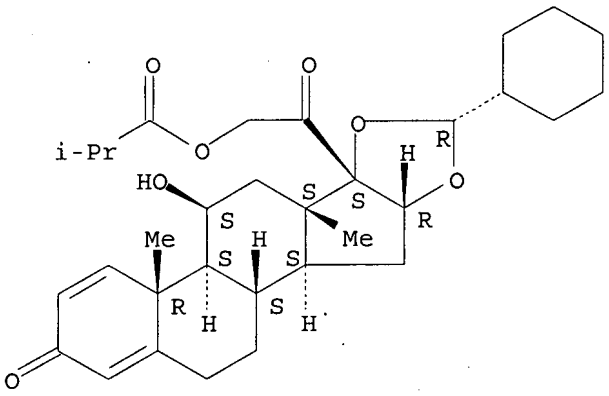
AB A pressure-liquefied propellant mixture for aerosols comprising a fluoridated alkane [especially 1,1,1,2-tetrafluoroethane and/or 1,1,1,2,3,3,3-heptafluoropropane (HFA 227)] and CO2 improves the wetting properties for pharmaceutical active substances, whereby existing formulation problems with hydrofluoroalkanes in suspension and solution aerosols can be overcome and improved medical aerosol formulations can be obtained. By using CO2, the pressure and hence the particle size distribution can be influenced in a targeted manner, and by removing O2 from the hydrofluoroalkanes, the stability during storage of oxidation-sensitive active substances can be improved. Thus, 1.5 kg HFA 227 was gassed with CO2 and added at 6.5 bar and 20° to a solution of beclomethasone dipropionate 2.5 and oleic acid 0.25 in EtOH 55 g in a pressurized vessel; the mixture was dispensed into Al aerosol canisters. The mean aerodynamic particle diameter and fine particle dose per stroke of the dosing valve were .apprx.1.3 μm and 61.5 μg, resp., immediately after filling the canisters; after 6 mo storage at 30° and 70% relative humidity, these values were .apprx.1.3 μm and 71.8 μg, resp.

IT ***126544-47-6***, Ciclesonide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fluorocarbon propellants for medical aerosol formulations)

RN 126544-47-6 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

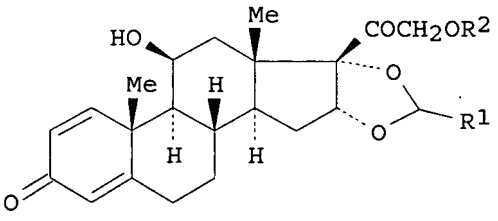
L38 ANSWER 164 OF 167 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:175941 CAPLUS
DOCUMENT NUMBER: 128:230565
TITLE: Process for R-epimer enrichment of 16,17-acetal derivatives of 21-acyloxypregna-1,4-dien-11β,16α,17α-triol-3,20-dione
INVENTOR(S): Amschler, Hermann; Flockerzi, Dieter; Gutterer, Beate
PATENT ASSIGNEE(S): Byk Gulden Lomberg Chemische Fabrik G.m.b.H., Germany; Gutterer, Beate

SOURCE: PCT Int. Appl., 13 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9809982	A1	19980312	WO 1997-EP4716	19970829
W: AL, AU, BA, BG, BR, CA, CN, CZ, EE, GE, HU, IL, JP, KR, LT, LV, MK, MX, NO, NZ, PL, RO, SG, SI, SK, TR, UA, US, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19635498	A1	19980326	DE 1996-19635498	19960903
CA 2264863	AA	19980312	CA 1997-2264863	19970829
AU 9744567	A1	19980326	AU 1997-44567	19970829
AU 736840	B2	20010802		
EP 929566	A1	19990721	EP 1997-942897	19970829
EP 929566	B1	20021211		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000517330	T2	20001226	JP 1998-512213	19970829
AT 229539	E	20021215	AT 1997-942897	19970829
EE 3927	B1	20021216	EE 1999-79	19970829
PT 929566	T	20030430	PT 1997-942897	19970829
ES 2188984	T3	20030701	ES 1997-942897	19970829
IL 128535	A1	20030706	IL 1997-128535	19970829
PL 186063	B1	20030930	PL 1997-331699	19970829
US 6787533	B1	20040907	US 1999-147675	19990211

PRIORITY APPLN. INFO.: DE 1996-19635498 A 19960903
WO 1997-EP4716 W 19970829

OTHER SOURCE(S): MARPAT 128:230565
GI



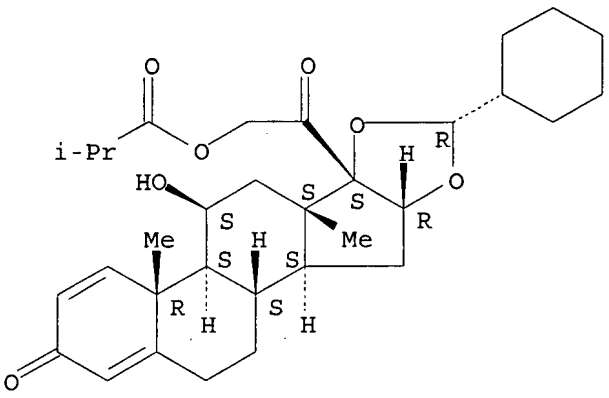
I

AB Epimer enrichment of compds. of formula I [R1 = alkyl, cycloalkyl; R2 = alkanoyl, cycloalkanoyl] by fractional crystallization is described. Thus, I (R1 = cyclohexyl; R2 = isobutyryl) is dissolved in ethanol, then water is added to the boiling mixture and cooled to precipitate the 16(R)-enriched material.

IT ***126544-47-6P***
RL: PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)
(epimer enrichment of 16,17-acetal derivs. of acyloxypregnadienetrioldione via fractional crystallization)

RN 126544-47-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

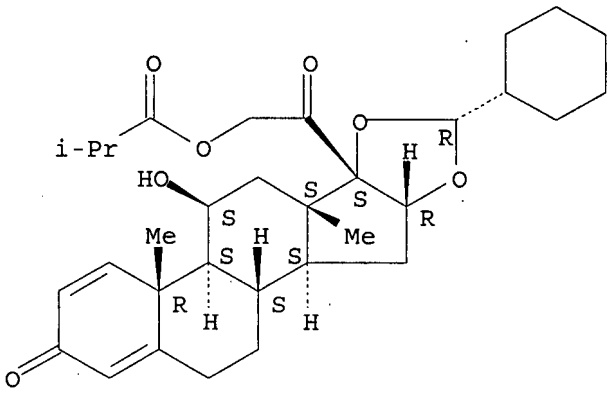
L38 ANSWER 165 OF 167 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:410456 CAPLUS
DOCUMENT NUMBER: 125:67725
TITLE: Combination of ciclesonide and β2-sympathomimetics for treatment of chronic obstructive respiratory diseases
INVENTOR(S): Goetz, Josef
PATENT ASSIGNEE(S): Byk Gulden Lomberg Chemische Fabrik Gmbh, Germany
SOURCE: Ger. Offen., 4 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19541689	A1	19960515	DE 1995-19541689	19951109
PRIORITY APPLN. INFO.:			CH 1994-3405 A	19941114

AB The topically applied title combination shows good local antiasthmatic activity without systemic side effects and is suitable for long-term inhalation therapy. Thus, ciclesonide 15.5, formoterol fumarate dihydrate 1.1, and sorbitan trioleate 15.5 g were micronized in 1.99 kg CCl3F, and the mixture was dispersed in 3.00 kg CCl2F2 and dispensed into aerosol containers.
IT ***126544-47-6***, Ciclesonide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combination of ciclesonide and β2-sympathomimetics for treatment of chronic obstructive respiratory diseases)
RN 126544-47-6 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L38 ANSWER 166 OF 167 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:382865 CAPLUS
DOCUMENT NUMBER: 125:49324
TITLE: Combinations of glucocorticoids and pulmonary surfactant for treatment of infant and adult respiratory distress syndrome
INVENTOR(S): Germann, Pual-Georg; Eistetter, Klaus; Kilian, Ulrich; Haefner, Dietrich
PATENT ASSIGNEE(S): Byk Gulden Lomberg Chemische Fabrik Gmbh, Germany
SOURCE: PCT Int. Appl., 6 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9609831	A2	19960404	WO 1995-EP3816	19950927
WO 9609831	A3	19960523		
W: AU, BG, BY, CA, CN, CZ, EE, FI, HU, JP, KR, LT, LV, MX, NO, NZ, PL, RO, RU, SG, SI, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 4434629	C1	19960627	DE 1994-4434629	19940928
CA 2201377	AA	19960404	CA 1995-2201377	19950927
AU 9537428	A1	19960419	AU 1995-37428	19950927
AU 705099	B2	19990513		
EP 783314	A2	19970716	EP 1995-935387	19950927
EP 783314	B1	20030528		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
CN 1163571	A	19971029	CN 1995-196265	19950927
CN 1100542	B	20030205		
JP 10506119	T2	19980616	JP 1995-511377	19950927
HU 77931	A2	19981130	HU 1998-1664	19950927
RU 2157222	C2	20001010	RU 1997-106790	19950927

EE 3422	B1	20010615	EE 1997-84		19950927
AT 241372	E	20030615	AT 1995-935387		19950927
PT 783314	T	20031031	PT 1995-935387		19950927
CZ 292846	B6	20031217	CZ 1997-940		19950927
ES 2201120	T3	20040316	ES 1995-935387		19950927
PL 187496	B1	20040730	PL 1995-319608		19950927
SK 284446	B6	20050401	SK 1997-401		19950927
NO 9701403	A	19970417	NO 1997-1403		19970325
NO 313405	B1	20020930			
FI 9701277	A	19970527	FI 1997-1277		19970326
US 5891844	A	19990406	US 1997-809687		19970619
HK 1003869	A1	20031031	HK 1998-103100		19980415
PRIORITY APPLN. INFO.:			DE 1994-4434629	A	19940928
			WO 1995-EP3816	W	19950927

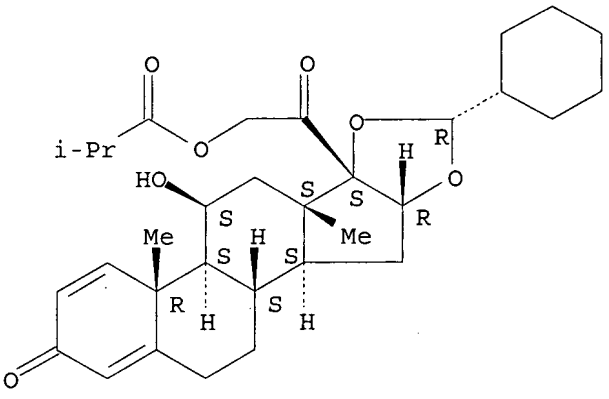
AB Glucocorticoids and pulmonary surfactant act synergistically in amelioration of the title conditions. The duration of treatment and the mortality associated with these syndromes can be significantly reduced with these compns. Thus, in rats with exptl. respiratory distress (induced by lung lavage to remove endogenous lung surfactant), intratracheal instillation of budesonide (600 μg/kg) together with lung surfactant (25 or 100 mg/kg) increased the PaO2 more than did lung surfactant alone; budesonide alone was ineffective.

IT ***126544-47-6***, Ciclesonide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combinations of glucocorticoids and pulmonary surfactant for treatment of infant and adult respiratory distress syndrome)

RN 126544-47-6 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

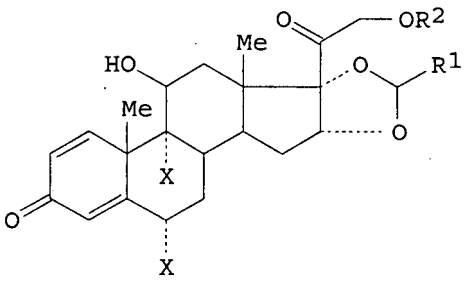


L38 ANSWER 167 OF 167 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:426918 CAPLUS
DOCUMENT NUMBER: 117:26918
TITLE: Preparation of pregna-1,4-dien-3,20-dion-16-17-acetal-21-esters as local antiinflammatories
INVENTOR(S): Calatayud, Jose; Conde, Jose Ramon; Luna, Manuel

PATENT ASSIGNEE(S): Especialidades Latinas Medicamentos Universales S. A., Spain
SOURCE: Ger. Offen., 22 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4129535	A1	19920312	DE 1991-4129535	19910905
FR 2666585	A1	19920313	FR 1991-10682	19910828
FR 2666585	B1	19940909		
NL 9101472	A	19920401	NL 1991-1472	19910830
NL 194917	B	20030303		
NL 194917	C	20030704		
BE 1005876	A5	19940222	BE 1991-816	19910902
GB 2247680	A1	19920311	GB 1991-18967	19910903
GB 2247680	B2	19940601		
ES 2034893	A1	19930401	ES 1991-1991	19910905
ES 2034893	B1	19940101		
CA 2050812	AA	19920308	CA 1991-2050812	19910906
CA 2050812	C	20030729		
AU 9183686	A1	19920312	AU 1991-83686	19910906
AU 649472	B2	19940526		
JP 04257599	A2	19920911	JP 1991-227418	19910906
JP 3292928	B2	20020617		
CH 683343	A	19940228	CH 1991-2619	19910906
AT 9101769	A	19970215	AT 1991-1769	19910906
AT 402930	B	19970925		
PT 98897	B	20001031	PT 1991-98897	19910906
US 5482934	A	19960109	US 1994-278112	19940720

PRIORITY APPLN. INFO.: US 1990-578942 A 19900907
OTHER SOURCE(S): MARPAT 117:26918
GI



I

AB Title compds. (22R,S-I; R1 = Bu, CHMe2, CHMeEt, cyclohexyl, Ph; R2 = Ac, COCHMe2, X = = H, F) were prepared Thus, 11,16,17,21-tetrahydroxypregna-1,4-diene-3,20-one was stirred with pyridine/Ac2O at ≤20° to give the 16,17,21-triacetate. The latter was stirred with BuCHO/HCl/HClO4 in dioxane at 50° for 200 h to give 22 R,S-I (R1 = Bu, R2 = Ac, X = H). The S-isomer of the latter showed an ED50 of 20.5 μg/capsule in the cellulose capsule granuloma assay for local antiinflammatory activity

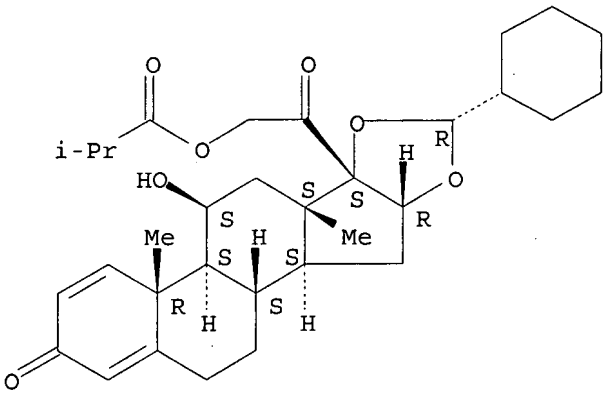
in rats, and had a therapeutic index (ratio of systemic ED50/local ED50) of 29.6. Pharmaceutical formulations comprising I are given.

IT ***126544-47-6P***
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as local antiinflammatory)

RN 126544-47-6 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d que l37
L15 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

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L19 1 SEA FILE=CAPLUS ABB=ON PLU=ON US2005-510147/AP
L20 226 SEA FILE=CAPLUS ABB=ON PLU=ON (L19 OR L18)
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L22 58 SEA FILE=CAPLUS ABB=ON PLU=ON (L21 OR L19)
L23 1423262 SEA FILE=CAPLUS ABB=ON PLU=ON (AEROSOL? OR SUSPENSION? OR PARTICLE? OR FORMOTEROL? OR CICLESONID?)/BI,OBI
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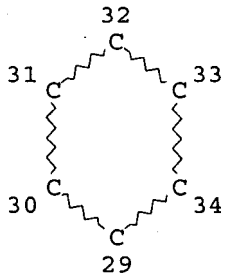
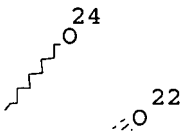
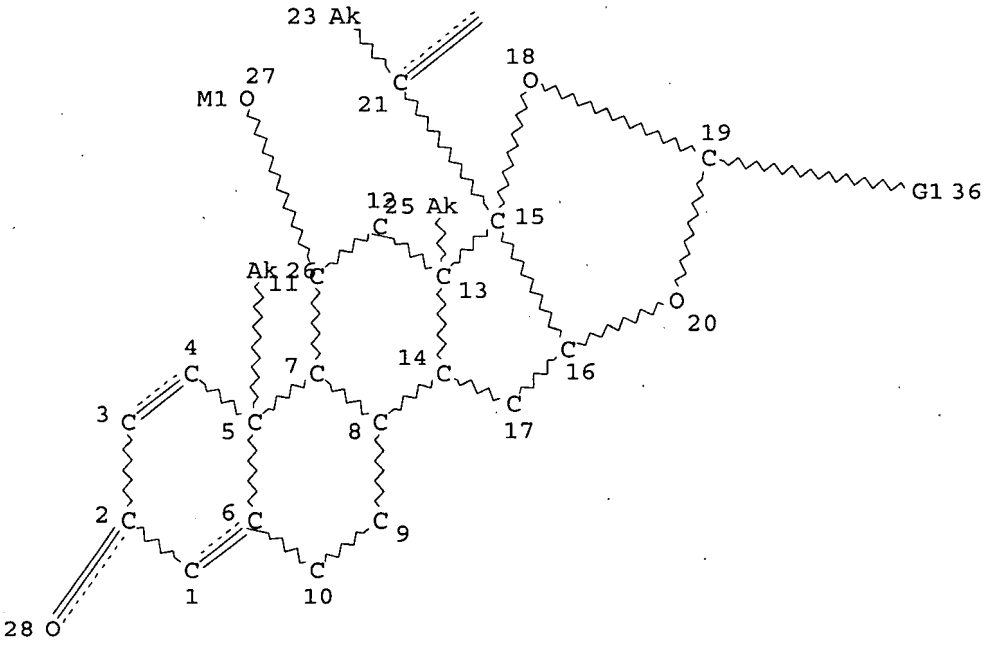




Page 1-A

Ak 35

Page 1-B



Page 2-A
VAR G1=31/35
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GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 36

STEREO ATTRIBUTES: NONE
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L34 92 SEA FILE=REGISTRY ABB=ON PLU=ON L30 NOT L33
L35 70 SEA FILE=CAPLUS ABB=ON PLU=ON L34
L36 36 SEA FILE=CAPLUS ABB=ON PLU=ON L35 NOT (PY>2002 OR AY>2002 OR PRY>2002)

L37 50 SEA FILE=CAPLUS ABB=ON PLU=ON (L27 OR L36)

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L37 ANSWER 1 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:836813 CAPLUS
DOCUMENT NUMBER: 139:328356
TITLE: ***Aerosols*** containing ***formoterol*** and progesterone derivatives
INVENTOR(S): Oliver, Martin J.; Jinks, Philip A.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003086349	A1	20031023	WO 2003-US10285	20030401
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2481187	AA	20031023	CA 2003-2481187	20030401
AU 2003262146	A1	20031027	AU 2003-262146	20030401
EP 1492500	A1	20050105	EP 2003-746589	20030401
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005529102	T2	20050929	JP 2003-583372	20030401
US 2005207984	A1	20050922	US 2005-510147	20050324 <--
PRIORITY APPLN. INFO.:			GB 2002-7899 A	20020405
			WO 2003-US10285 W	20030401

AB Disclosed is a pharmaceutical ***aerosol*** formulation comprising ***particles*** of ***formoterol*** or its pharmaceutically acceptable salt, solvate or physiol. functional derivative and ***ciclesonide*** or derivs. thereof. A propellant is selected from 1,1,1,2-tetrafluoroethane, 1,1,1,2,3,3,3-heptafluoropropane and a mixture thereof. For example, an ***aerosol*** was made with micronized ***formoterol*** fumarate dihydrate and ***ciclesonide*** as the active ingredient and HFA134a as the propellant.
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 2 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:621956 CAPLUS
DOCUMENT NUMBER: 137:163878
TITLE: ***Ciclesonide*** (Byk Gulden)
AUTHOR(S): Dent, Gordon
CORPORATE SOURCE: Division of Infection, Inflammation & Repair, University of Southampton School of Medicine,

Southampton, SO16 6YD, UK
SOURCE: Current Opinion in Investigational Drugs (PharmaPress Ltd.) (2002), 3(1), 78-83
CODEN: COIDAZ; ISSN: 1472-4472
PUBLISHER: PharmaPress Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

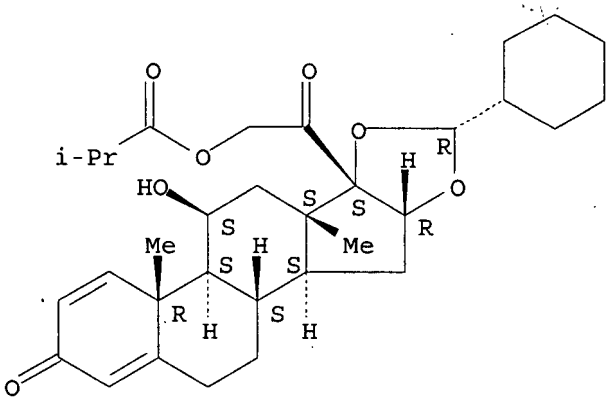
AB A review. ***Ciclesonide***, a non-halogenated inhaled corticosteroid with antiinflammatory activity, is under development by Byk Gulden, Aventis and Teijin as a potential treatment for asthma. It was also being developed by Byk Gulden for chronic obstructive pulmonary disease (COPD), but no development had been reported for this indication since 1999; however, Teijin was carrying out clin. trials in this indication at the end of 2000. During 2000, Byk Gulden was carrying out phase III trials in the US and Europe and in Mar. 2001, results were expected in the third quarter of 2001. Two inhalant formulations (multidose powder and propellant filled) and a nasal formulation of ***ciclesonide*** are being developed by Byk Gulden for the treatment of asthma and seasonal allergic rhinitis, resp. The compound is formulated for once-daily dosing and demonstrated good efficacy without corticosteroid-associated systemic side effects. In Jan. 2001, Byk Gulden expected launch of a CFC-free multidose inhaler formulation in 2003; in Mar. 1999, launch of a nasal formulation was expected in 2004 and a multidose powder inhaler in 2005. By Sept. 2001, the compound was in phase III trials in the US for asthma, with a potential US launch anticipated by Aventis in 2004. In Nov. 2001, Aventis expected to submit an NDA to the FDA in 2003. Teijin, which has a development and licensing agreement with Byk Gulden for the treatment of asthma and COPD in Japan, commenced phase I trials of ***ciclesonide*** in Japan in spring 1999, had completed these during 2000, and began phase II trials by Sept. of that year. An NDA is expected to be filed in Japan in 2003. In Oct. 2000 and Apr. 2001, Merrill Lynch predicted peak sales of 6400 million in 2007, with sales of 65 million in 2002, rising to €150 million in 2004. Deutsche Bank predicted in August 2001, that sales of the product would reach €70 million in 2004, rising to €150 million in 2005.

IT ***126544-47-6, Ciclesonide***
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(***ciclesonide*** (Byk Gulden) for treatment of asthma and seasonal allergic rhinitis)

RN 126544-47-6 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

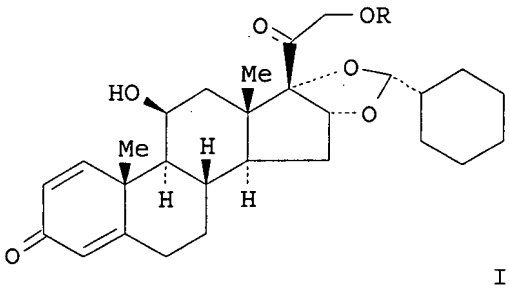


REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

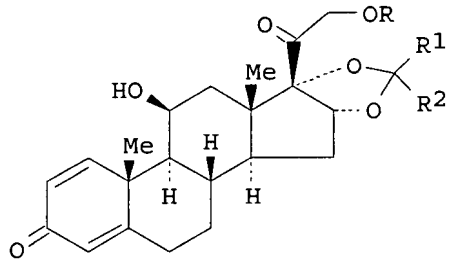
L37 ANSWER 3 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:552149 CAPLUS
DOCUMENT NUMBER: 137:109420
TITLE: Procedure for the production of a glucocorticoids via reaction of steroid ketals with cyclohexane aldehyde.
INVENTOR(S): Gutterer, Beate
PATENT ASSIGNEE(S): Byk Gulden Lomberg Chemische Fabrik G.m.b.H., Germany
SOURCE: Ger., 4 pp.
CODEN: GWXXAW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10055820	C1	20020725	DE 2000-10055820	20001110
PRIORITY APPLN. INFO.:			DE 2000-10055820	20001110

OTHER SOURCE(S): CASREACT 137:109420; MARPAT 137:109420
GI



I



II

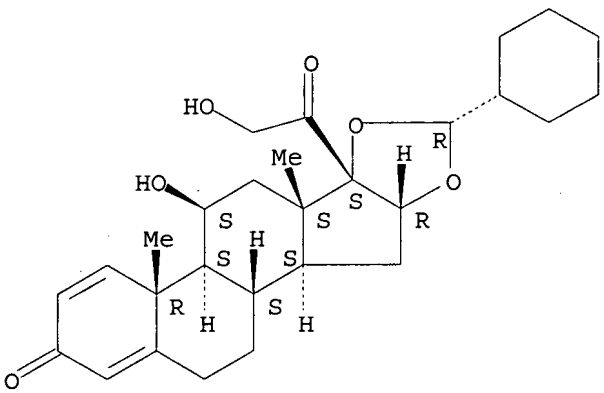
AB The invention concerns a procedure for the production of the compds. I [R = H, COCHMe2] as at least 90% R epimer, by conversion of appropriate 16,17-ketals II [R = H, COCHMe2; R1, R2 = C1-4-alkyl; R1 = R2 = Me] with cyclohexane aldehyde. Thus, desonide (II; R = H, R1 = R2 = Me) was reacted with cyclohexanecarboxaldehyde in 1-nitropropane containing 70% HClO4 to give I (R = H) [97.8% R-epimer].

IT ***161115-59-9P***
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of a glucocorticoids via reaction of steroid ketals with cyclohexane aldehyde)

RN 161115-59-9 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11,21-dihydroxy-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 4 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:462344 CAPLUS
DOCUMENT NUMBER: 137:52364
TITLE: New pharmaceutical preparation
INVENTOR(S): Dietrich, Rango; Linder, Rudolf; Ney, Hartmut
PATENT ASSIGNEE(S): BYK Gulden Lomberg Chemische Fabrik GmbH, Germany
SOURCE: Ger. Offen., 26 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

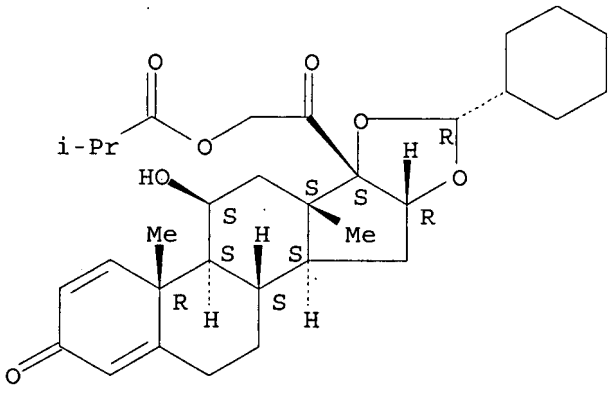
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10061137	A1	20020620	DE 2000-10061137	20001207
PRIORITY APPLN. INFO.:			DE 2000-10061137	20001207

AB The present invention concerns the area of pharmaceutical technol. and describes a new advantageous preparation for an active substance. The new preparation is suitable for the production of a multiplicity of pharmaceutical administrative forms. With the new preparation an active substance is present essentially evenly distributed in an excipient matrix from one or more excipients selected from a fatty alc., a triglyceride, a partial glyceride, and a fatty acid ester.

IT ***126544-47-6, Ciclesonide***
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(new pharmaceutical prepns.)

RN 126544-47-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

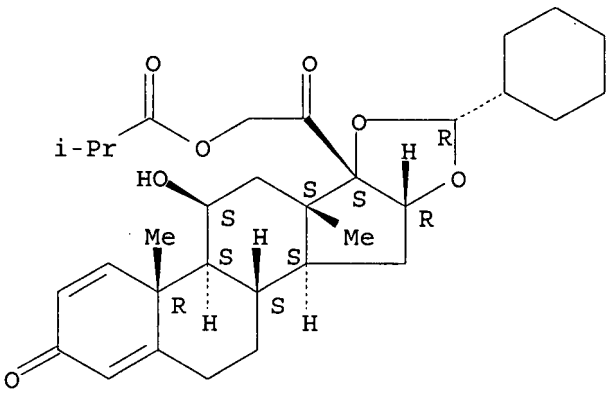
L37 ANSWER 5 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:355277 CAPLUS
DOCUMENT NUMBER: 137:88585
TITLE: Circadian rhythm of serum cortisol after repeated inhalation of the new topical steroid ***ciclesonide***
AUTHOR(S): Weinbrenner, Anita; Huneke, Dagny; Zschiesche, Michael; Engel, Georg; Timmer, Wolfgang; Steinijans, Volker W.; Bethke, Thomas; Wurst, Wilhelm; Drollmann, Anton; Kaatz, Hans Joachim; Siegmund, Werner
CORPORATE SOURCE: Department of Clinical Pharmacology, Ernst Moritz Arndt University, Greifswald, 17487, Germany
SOURCE: Journal of Clinical Endocrinology and Metabolism (2002), 87(5), 2160-2163
CODEN: JCEMAZ; ISSN: 0021-972X
PUBLISHER: Endocrine Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The new inhalative glucocorticoid ***ciclesonide*** which is activated in lung to a more potent metabolite was hypothesized to have low risk for systemic and local side-effects in man. Therefore, a placebo-controlled, randomized, double-blind, four-period, change-over equivalence study in 12 healthy male volunteers (age 21-28 yr, body weight 62-90 kg) was conducted to assess the influence of three dosage regimens (800 μg in the morning, 800 μg in the evening, 400 μg twice daily for 7 d, metered inhalers) on the circadian time serum cortisol rhythm. Serum cortisol showed the typical circadian rhythm. The geometric mean of the 24-h mesor (AUC(0-24 h) 24 h) was 7.22 μg/dL for placebo, 6.75 μg/dL for the 800 μg ***ciclesonide*** morning dose, 7.08 μg/dL for the 800 μg evening dose, and 6.75 μg/dL for 400 μg ***ciclesonide*** inhaled twice daily. Because there was also no influence on cortisol amplitude and acrophase (time of maximum), the profiles after ***ciclesonide*** were equivalent to the placebo control. The small differences were considered not to be of clin. significance. In conclusion, inhaled ***ciclesonide*** in daily doses of 800 μg for 7 d is without clin. relevant effects on the hypothalamic-pituitary-adrenal axis independent of the time of administration.

IT ***126544-47-6, Ciclesonide***
RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(glucocorticoid ***ciclesonide*** repeated inhalation effect on serum cortisol circadian rhythm and HPA axis)

RN 126544-47-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

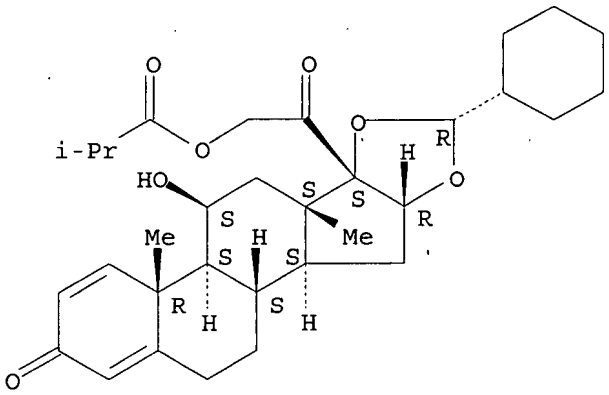
Absolute stereochemistry.



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 6 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:74858 CAPLUS
DOCUMENT NUMBER: 136:319460
TITLE: ***Ciclesonide***: Treatment of allergic rhinitis antiallergy/antiasthmatic BY-9010 B-9207-015
AUTHOR(S): Mealy, N. E.; Bayes, M.; Castaner, J.
CORPORATE SOURCE: Prous Science, Barcelona, 08080, Spain
SOURCE: Drugs of the Future (2001), 26(11), 1033-1039
CODEN: DRFUD4; ISSN: 0377-8282
PUBLISHER: Prous Science
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review discusses the synthesis, pharmacol. actions, hepatic metabolism, and the safety and efficacy of ***ciclesonide***. ***Ciclesonide*** is a new-generation inhaled nonhalogenated glucocorticoid with high local antiinflammatory properties.
IT ***126544-47-6***, ***Ciclesonide***
RL: ADV (Adverse effect, including toxicity); DMA (Drug mechanism of action); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(***ciclesonidein*** in treatment of allergic rhinitis)
RN 126544-47-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

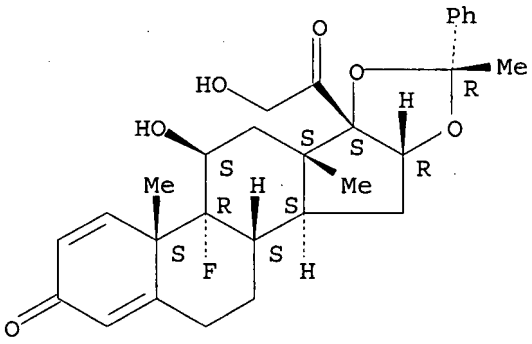
L37 ANSWER 7 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:741543 CAPLUS
DOCUMENT NUMBER: 135:293962
TITLE: Pharmaceutical composition and method for control and treatment of cutaneous inflammation
INVENTOR(S): Dobbs, Michael R.; McArthur, T. Reid
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 5 pp., Cont. of U.S. Ser. No. 876,893, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6300326	B1	20011009	US 2000-631165	20000803
PRIORITY APPLN. INFO.:			US 1994-333831 B1	19941102
			US 1997-876893 B1	19970616

AB A composition for treating cutaneous inflammation by topical application comprises a range of percentages of anti-infective solvent, water, an emollient agent, and anti-inflammatory/anti-pruritic agents. The composition is sufficiently viscous to be applied as a spray. There is also disclosed a method of treating the dermal areas of mammals using the composition as a topical medication. Thus, approx. 171 g of triamcinolone acetonide, 113.6 kg denatured alc., 227.1 kg propylene glycol, 5.68 kg dimethyldimethyl hydantoin, and 788.95 kg purified water was used to prepare a topical pharmaceutical. Antipruritic and anti-inflammatory activity of the composition in dogs was studied.

IT ***7332-27-6***, Amcinafide
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical composition and method for control and treatment of cutaneous inflammation)
RN 7332-27-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[[(1R)-1-phenylethylidene]bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 8 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:668257 CAPLUS
DOCUMENT NUMBER: 135:231701
TITLE: Formulation for inhalation and the treatment of respiratory disorders
INVENTOR(S): Trofast, Jan
PATENT ASSIGNEE(S): Astra Aktiebolag, Swed.
SOURCE: U.S., 4 pp., Cont.-in-part of U.S. 6,030,604.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6287540	B1	20010911	US 1999-431916	19991102
US 6030604	A	20000229	US 1998-4902	19980109
PRIORITY APPLN. INFO.:			SE 1997-135 A	19970120
			US 1998-4902 A2	19980109
			US 1994-316938 A2	19941003

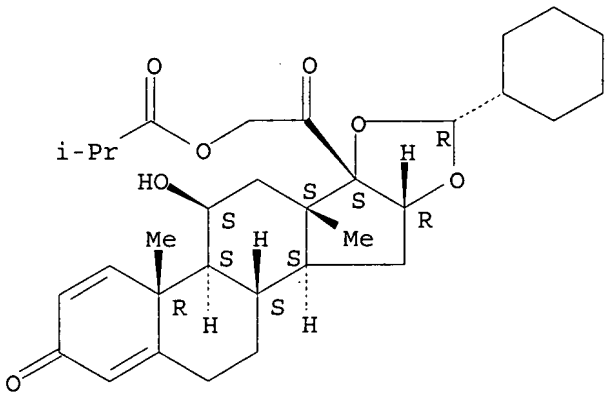
AB A dry powder composition comprising one more potent pharmaceutically active substances and a carrier substance, all of which are in finely divided form, wherein the formulation has a poured bulk d. of from 0.28 to 0.38 g/mL is useful in the treatment of respiratory disorders. Thus, 0.0315 parts of ***formoterol*** flimarate dihydrate and 2.969 parts of lactose monohydrate were mixed and micronized to obtain a ***particle*** size of less than 3 μm. The micronized ***particles*** were then treated to remove amorphous regions in their crystal structure. The powder was then agglomerated, sieving in an oscillating sieve (0.5 mm mesh size), spheronizing in a rotating pan with a peripheral speed of 0.5 m/s for 4 min and then sieving again using the same sieve, then spheronizing once more for 6 min before final sieving (mesh size 1.0 mm) giving a powder with a bulk d. of 0.32 g/mL.

IT ***126544-47-6, Ciclesonide***
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(formulation for inhalation and treatment of respiratory disorders)

RN 126544-47-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA

INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 9 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:633133 CAPLUS
DOCUMENT NUMBER: 135:352974
TITLE: Treatment of asthma by the inhaled corticosteroid ***ciclesonide*** given either in the morning or evening
AUTHOR(S): Postma, D. S.; Sevette, C.; Martinat, Y.; Schlosser, N.; Aumann, J.; Kafe, H.
CORPORATE SOURCE: Dept of Pulmonology, University Hospital, Groningen, Neth.
SOURCE: European Respiratory Journal (2001), 17(6), 1083-1088
CODEN: ERJOEI; ISSN: 0903-1936
PUBLISHER: European Respiratory Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The study addressed the question whether the novel inhaled prodrug corticosteroid ***ciclesonide*** is equally effective when inhaled in the morning compared to the evening. For this purpose a double-blind, randomized, parallel group study was initiated in which 209 asthmatic patients (forced expiratory volume in one second=50-90% predicted) inhaled either 200 μg ***ciclesonide*** in the morning or in the evening, for 8 wk. Efficacy was assessed by means of spirometry as well as daily recordings of morning and evening peak expiratory flow (PEF), symptoms and use of rescue medication. The 24-h urinary cortisol excretion was measured to evaluate any effect on hypothalamic-pituitary-adrenol axis. ***Ciclesonide*** significantly improved asthma control. Morning and evening administration was shown to be equally effective for the different spirometry variables, evening PEF, symptoms, use of rescue medication and number of asthma exacerbations. Regarding morning PEF, the improvements after evening dosing were more prominent and equivalence of morning and evening administration could not be demonstrated. No relevant influence on cortisol excretion was found. Overall, the study indicates that ***ciclesonide*** can be given either in the morning or in the evening to meet the patients' preference and individual medical needs, although evening administration may lead to a more pronounced improvement in

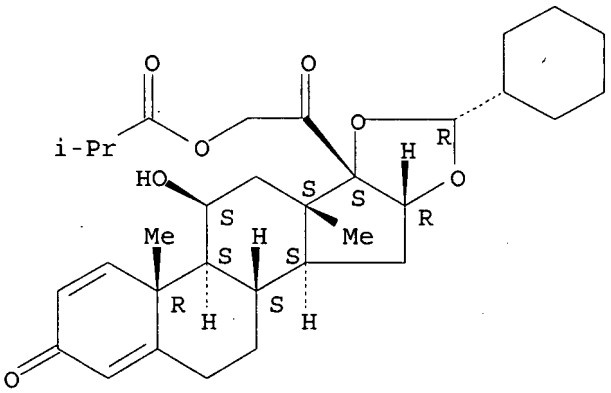
morning peak expiratory flow.

IT ***126544-47-6, Ciclesonide***
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(treatment of asthma by inhaled prodrug corticosteroid ***ciclesonide*** given either in morning or evening)

RN 126544-47-6 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

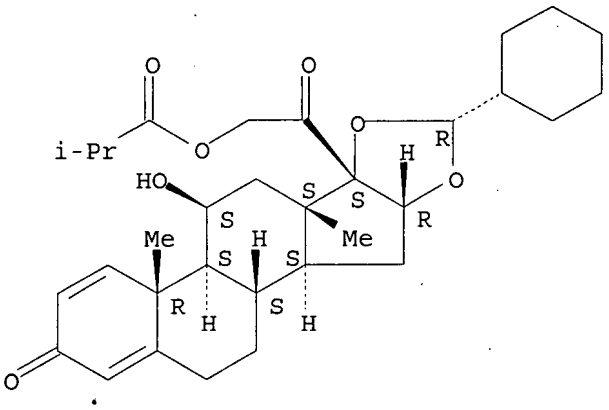
L37 ANSWER 10 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:360981 CAPLUS
DOCUMENT NUMBER: 135:236477
TITLE: ***Ciclesonide***: An on-site-activated steroid
AUTHOR(S): Dietzel, K.; Engelstatter, R.; Keller, A.
CORPORATE SOURCE: Byk Gulden Pharmaceuticals, Konstanz, Germany
SOURCE: Progress in Respiratory Research (2001), 31(New Drugs for Asthma, Allergy and COPD), 91-93
CODEN: PRRRAE; ISSN: 1422-2140
PUBLISHER: S. Karger AG
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 18 refs. ***Ciclesonide*** is a novel non-halogenated inhaled corticosteroid that is not directly active, but is cleaved by endogenous esterases in the lung to activated drug substance. Thus, ***ciclesonide*** is an on-site-activated drug. Because of this, it has high topical potency but essentially no oropharyngeal side effects and suppression of endogenous cortisol. In this chapter we review the encouraging preclin. and clin. data on ***ciclesonide***.

IT ***126544-47-6, Ciclesonide***
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(***ciclesonide*** as a novel non-halogenated inhaled

corticosteroid in humans with asthma)
RN 126544-47-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 11 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:218676 CAPLUS
DOCUMENT NUMBER: 135:71009
TITLE: Effect of Inhaled ***Ciclesonide*** on Airway Responsiveness to Inhaled AMP, the Composition of Induced Sputum and Exhaled Nitric Oxide in Patients with Mild Asthma
AUTHOR(S): Kanniess, F.; Richter, K.; Bohme, S.; Jorres, R. A.; Magnussen, H.
CORPORATE SOURCE: Pulmonary Research Institute, Center for Pneumology and Thoracic Surgery, Hospital Grosshansdorf, Grosshansdorf, D-22927, Germany
SOURCE: Pulmonary Pharmacology & Therapeutics (2001), 14(2), 141-147
CODEN: PPTHFJ; ISSN: 1094-5539
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To assess the efficacy of ***ciclesonide***, a novel corticosteroid pro-drug, we compared its effect on lung function, airway responsiveness to inhaled AMP, the composition of induced sputum, and the level of exhaled nitric oxide (NO) with the effect of budesonide in patients with asthma. Fifteen non-smoking steroid-naive patients (mean FEV1, 94% pred) inhaled either 400 μg ***ciclesonide*** or 400 μg budesonide as a single morning dose for two weeks each separated by a ≥3 wk wash-out period. The study was performed in a double-observer, randomized, cross-over design. FEV1increased significantly during treatment with budesonide (3.38 vs. 3.64 l P=0,003), but not after ***ciclesonide*** (3.60 vs. 3.69 l). PC20FEV1of AMP increased (P<0,001, each) after both budesonide (4.59 vs. 32.48 mg/mL, 2.8 doubling doses) and ***ciclesonide*** (3.92 vs. 20.00 mg/mL, 2.4 doubling doses). The percentage of sputum

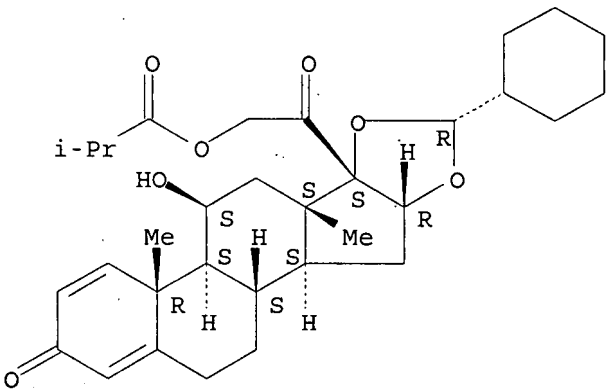
eosinophils was significantly reduced after ***ciclesonide*** (7.9 vs. 3.4%P=0.01), but not budesonide (6.0 vs. 4.3%). After both budesonide and ***ciclesonide***, a significant (P<0.001) reduction in the level of exhaled NO occurred. In none of the parameters studied, the changes differed significantly between treatment with budesonide or ***ciclesonide***. These data suggest that ***ciclesonide*** is equi-effective to budesonide with regard to its potency to reduce the airway responsiveness to inhaled AMP as well as airway inflammation in patients with mild asthma. (c) 2001 Academic Press.

IT ***126544-47-6, Ciclesonide***
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effect of ***ciclesonide*** on airway responsiveness to inhaled AMP, composition of induced sputum and exhaled nitric oxide in patients with asthma)

RN 126544-47-6 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 12 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:140546 CAPLUS
DOCUMENT NUMBER: 132:185436
TITLE: Inhalation formulations for β2-agonists and glucocorticosteroids
INVENTOR(S): Trofast, Jan
PATENT ASSIGNEE(S): Astra Aktiebolag, Swed.
SOURCE: U.S., 4 pp., Cont.-in-part of U.S. Ser. No. 316,938. CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 6030604	A	20000229	US 1998-4902	19980109
US 6371171	B1	20020416	US 1994-316938	19941003
US 6287540	B1	20010911	US 1999-431916	19991102
PRIORITY APPLN. INFO.:			US 1994-316938	A2 19941003
			SE 1997-135	A 19970120
			SE 1993-3215	A 19931001
			SE 1993-4270	A 19931222
			US 1998-4902	A2 19980109

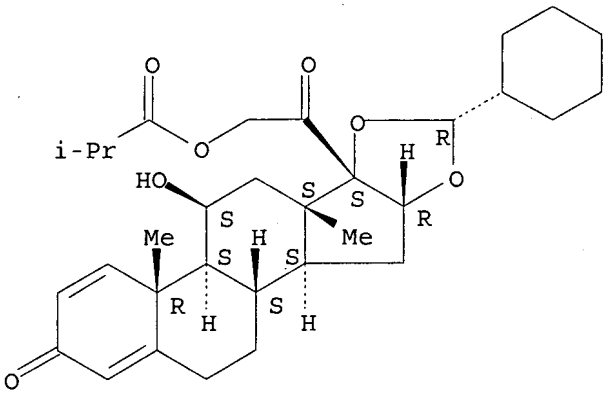
AB A dry powder composition comprising (a) one or more potent therapeutically active substances selected from the group consisting of glucocorticosteroids, β2-agonists, and prophylactic agents and (b) a carrier substance. The dry powder composition is in finely divided form with a poured bulk d. of 0.28-0.38 g/mL and is useful in the treatment of respiratory disorders, particularly asthma. For example, 5.2 parts of ***formoterol*** fumarate dihydrate and 896.8 parts of lactose monohydrate were mixed and micronized to obtain a ***particle*** size of <3 μm. Micronized budesonide (98 parts) was added and the mixture was remicronized. The powder was agglomerated, spheronized and sieved to give a powder with a bulk d. of 0.34 g/mL.

IT ***126544-47-6, Ciclesonide***
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(powder inhalant formulations containing β2-agonists and glucocorticosteroids for treatment of respiratory disorders)

RN 126544-47-6 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

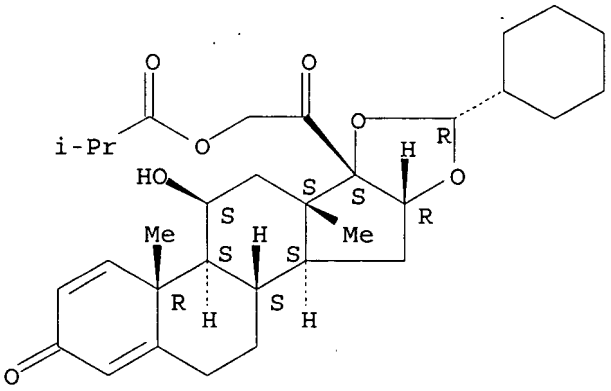


REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 13 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:29178 CAPLUS
DOCUMENT NUMBER: 132:59368
TITLE: The new topical steroid ***ciclesonide*** is effective in the treatment of allergic rhinitis
AUTHOR(S): Schmidt, Bernhard M. W.; Timmer, Wolfgang; Georgens, Anette C.; Hilt, Monika; Mattinger, Catherine; Wurst,

Wilhelm; Hormann, Karl; Wehling, Martin
CORPORATE SOURCE: Institute of Clinical Pharmacology, Mannheim University Hospital, Ruprecht-Karls-University Heidelberg, Mannheim, D-68167, Germany
SOURCE: Journal of Clinical Pharmacology (1999), 39(10), 1062-1069
CODEN: JCPCBR; ISSN: 0091-2700
PUBLISHER: Sage Publications
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A randomized, placebo-controlled, double-blind crossover study was performed to investigate the efficacy of ***ciclesonide*** nasal spray in allergic rhinitis at the dose level of 200 μg per nostril. Twenty-four subjects (13 males, 11 females; median age: 28 yr) with a history of allergic rhinitis but free of symptoms at screening entered the study. ***Ciclesonide*** and placebo were given for 7 days each with a washout period of at least 14 days in between. In both treatment periods, controlled intranasal allergen provocation with pollen exts. was performed on the 2 days before start of treatment (days-2 and-1) and on all treatment days (days 1 to 7) about 2 h after administration of the study medication. At 5 and 30 min after each allergen provocation, rhinal airflow was measured by anterior rhinomanometry, and the subjective symptoms of obstruction, itching, and rhinorrhea were assessed by means of a standardized visual analog scale. Rhinal airflow improved significantly from day 5, while the subjective symptom of obstruction improved from day 2. Itching and rhinorrhea also improved significantly. The local and systemic tolerability of ***ciclesonide*** nasal spray was excellent. The results of this study clearly indicate that the new topical steroid ***ciclesonide*** is effective in the treatment of allergic rhinitis without producing local or systemic side effects.
IT ***126544-47-6, Ciclesonide***
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(new topical steroid ***ciclesonide*** is effective in treatment of allergic rhinitis)
RN 126544-47-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME) .

Absolute stereochemistry.



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 14 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:410456 CAPLUS
DOCUMENT NUMBER: 125:67725
TITLE: Combination of ***ciclesonide*** and β2-sympathomimetics for treatment of chronic obstructive respiratory diseases
INVENTOR(S): Goetz, Josef
PATENT ASSIGNEE(S): Byk Gulden Lomberg Chemische Fabrik Gmbh, Germany
SOURCE: Ger. Offen., 4 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

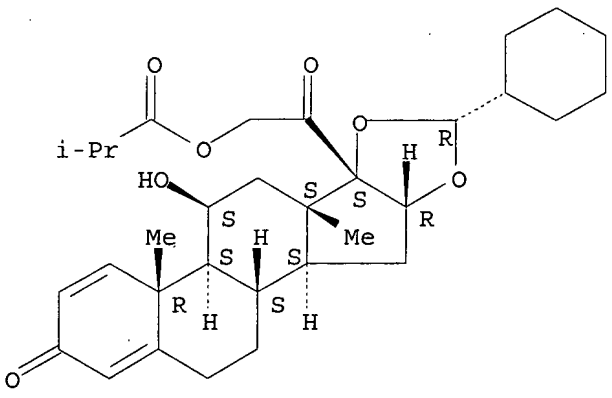
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19541689	A1	19960515	DE 1995-19541689	19951109
PRIORITY APPLN. INFO.:			CH 1994-3405 A	19941114

AB The topically applied title combination shows good local antiasthmatic activity without systemic side effects and is suitable for long-term inhalation therapy. Thus, ***ciclesonide*** 15.5, ***formoterol*** fumarate dihydrate 1.1, and sorbitan trioleate 15.5 g were micronized in 1.99 kg CCl3F, and the mixture was dispersed in 3.00 kg CCl2F2 and dispensed into ***aerosol*** containers.

IT ***126544-47-6, Ciclesonide***
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combination of ***ciclesonide*** and β2-sympathomimetics for treatment of chronic obstructive respiratory diseases)

RN 126544-47-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[[(R)-cyclohexylmethylene]bis(oxy)]-11-hydroxy-21-(2-methyl-1-oxopropoxy)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



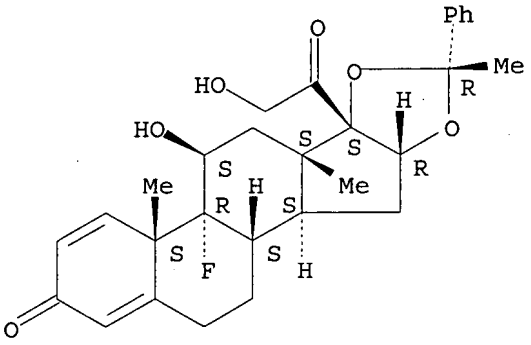
L37 ANSWER 15 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:524839 CAPLUS
DOCUMENT NUMBER: 119:124839
TITLE: Compositions for regulating skin wrinkles and/or skin atrophy
INVENTOR(S): Blank, Roy Lonnie; Doughty, Darell Gene; Linares, Carlos Gabriel
PATENT ASSIGNEE(S): Richardson-Vicks, Inc., USA
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9310755	A1	19930610	WO 1992-US9737	19921109
W: AU, BB, BG, BR, CA, CS, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, PL, RO, RU, SD				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG				
AU 9230736	A1	19930628	AU 1992-30736	19921109
EP 614353	A1	19940914	EP 1992-924418	19921109
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, SE				
CA 2122923	C	19990119	CA 1992-2122923	19921109
CN 1073859	A	19930707	CN 1992-111816	19921125
CN 1063627	B	20010328		
US 5605894	A	19970225	US 1994-342673	19941121
US 5776917	A	19980707	US 1996-768095	19961216
US 5776918	A	19980707	US 1996-771332	19961216
US 5811413	A	19980922	US 1996-768053	19961216
US 5837697	A	19981117	US 1996-767551	19961216
US 5780459	A	19980714	US 1997-921424	19970829
US 5786345	A	19980728	US 1997-921422	19970829
US 5789396	A	19980804	US 1997-921018	19970829
US 5804572	A	19980908	US 1997-920641	19970829
US 5869470	A	19990209	US 1997-920642	19970829
US 5883085	A	19990316	US 1998-63480	19980420
PRIORITY APPLN. INFO.:			US 1991-796749 A	19911125
			WO 1992-US9737 A	19921109
			US 1993-47602 B1	19930414
			US 1994-342673 A1	19941121
			US 1996-767050 B1	19961216
			US 1996-767533 B1	19961216
			US 1996-767549 B1	19961216
			US 1996-767552 B1	19961216
			US 1996-768086 B1	19961216
			US 1996-768095 A1	19961216

AB A composition for regulating wrinkles or atrophy in mammalian skin comprises (1) salicylic acid (I); and (2) another active agent selected from sunscreens, anti-inflammatory agents, vitamins, antioxidants, chelators, retinoids, benzofuran derivs., N-acetyl-L-cysteine derivs., skin protectants, and (3) a carrier, ABS. A topical composition contained I 2.0, Sepigel (polyacrylamide and C13-14 isoparaffin and laureth-7) 4.0, alc. SD-40 40.0, and water 54.0%.
IT ***7332-27-6***, Amcinafide
RL: BIOL (Biological study)

(wrinkle-preventing cosmetics containing salicylic acid and)
RN 7332-27-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[[(1R)-1-phenylethylidene]bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

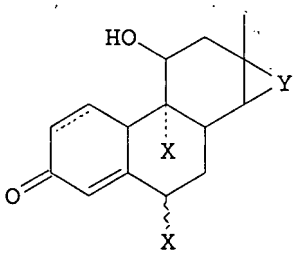
Absolute stereochemistry.



L37 ANSWER 16 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:517612 CAPLUS
DOCUMENT NUMBER: 119:117612
TITLE: Preparation of antiinflammatory carboxycyclic acetal pregnane derivatives
INVENTOR(S): Kim, Hyun P.; Sin, Kwan S.; Kim, Chang M.; Heo, Moon Y.; Lee, Henry J.
PATENT ASSIGNEE(S): Kangweon National University, S. Korea
SOURCE: U.S., 10 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5200518	A	19930406	US 1991-658542	19910221
PRIORITY APPLN. INFO.:			US 1991-658542	19910221

OTHER SOURCE(S): MARPAT 119:117612
GI



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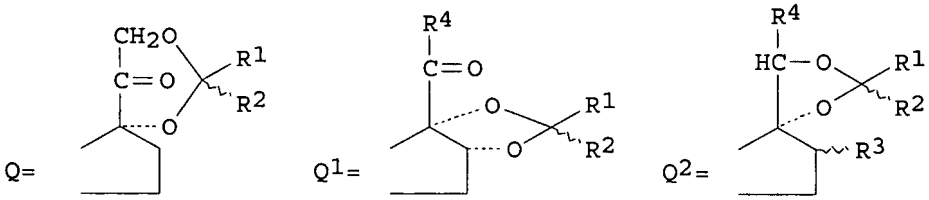


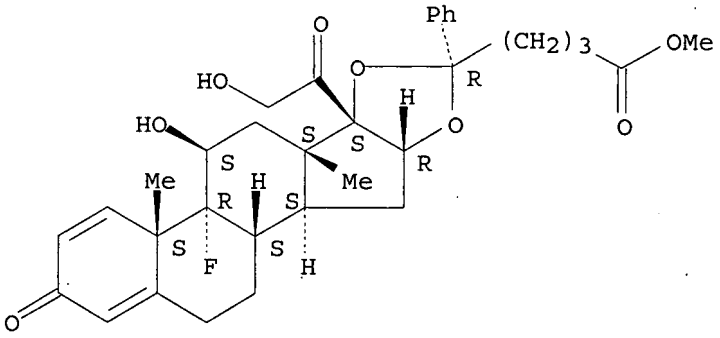
AB Title compds. I (X = H, Cl, F, Me; Y = Q, Q1, Q2; R1 = H, C1-5 alkyl, Ph, PhCH2; R2 = R6O2C, R6NHCOR5 wherein R5 = C1-3 alkyl, R6 = C1-5 alkyl, PhCH2, double bond; wavy bond = α-, β-stereoconfiguration or a mixture of α-, β-stereoconfiguration; broken bond = α-configuration) useful as antiinflammatory agents with less side effects than known compds., are prepared Triamcinolone in dioxane was added to MeCOCH2CO2Me and HClO4 to give (22R)-9α-fluoro-11β,21-dihydroxy-3,20-dioxo-16α,17-(Me,methoxycarbonylmethyl)methylenedioxy-1,4-pregnadiene (II). II at 0.001 mg/ear inhibited 51% edema in mice.

IT ***149474-70-4P 149561-84-2P***
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of, as antiinflammatory agent)

RN 149474-70-4 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[(5-methoxy-5-oxo-1-phenylpentylidene)bis(oxy)]-, [11β,16α(R)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

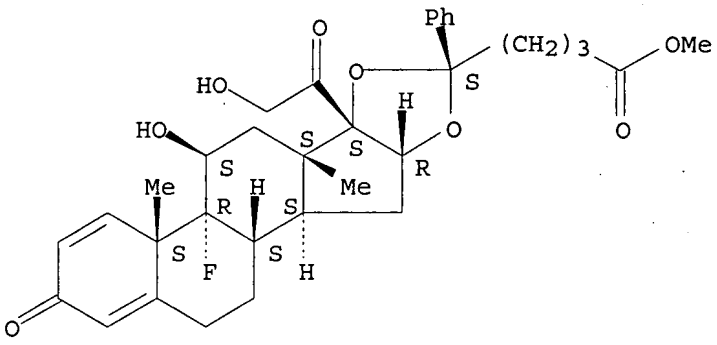


RN 149561-84-2 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[(5-methoxy-5-

oxo-1-phenylpentylidene)bis(oxy)]-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

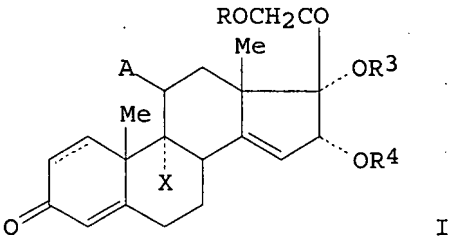
Absolute stereochemistry.



L37 ANSWER 17 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:82266 CAPLUS
DOCUMENT NUMBER: 114:82266
TITLE: Preparation of pregnatrienedione acetals and analogs as antiinflammatory agents
INVENTOR(S): Molnar, Csaba; Hajos, Gyorgy; Szporny, Laszlo; Toth, Jozsef; Kiraly, Arpad; Boor Mezei, Arma; Csorgei, Janos; Szekely, Krisztina; Forgacs, Lilla; Et, Al.
PATENT ASSIGNEE(S): Richter, Gedeon, Vegyeszeti Gyar Rt., Hung.
SOURCE: Eur. Pat. Appl., 18 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 387090	A2	19900912	EP 1990-302543	19900309
EP 387090	A3	19920506		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
HU 203769	B	19910930	HU 1989-1155	19890309
IL 93477	A1	19940731	IL 1990-93477	19900221
IN 169862	A	19920104	IN 1990-CA184	19900228
CA 2011280	AA	19900909	CA 1990-2011280	19900301
ZA 9001753	A	19901228	ZA 1990-1753	19900307
NO 9001102	A	19900910	NO 1990-1102	19900308
NO 177099	B	19950410		
NO 177099	C	19950719		
AU 9050798	A1	19900920	AU 1990-50798	19900308
AU 617929	B2	19911205		
JP 02279697	A2	19901115	JP 1990-55161	19900308
JP 07005629	B4	19950125		
CN 1045397	A	19900919	CN 1990-101249	19900309
US 5053404	A	19911001	US 1990-491682	19900309

PRIORITY APPLN. INFO.: HU 1989-1155 A 19890309
OTHER SOURCE(S): MARPAT 114:82266
GI



I

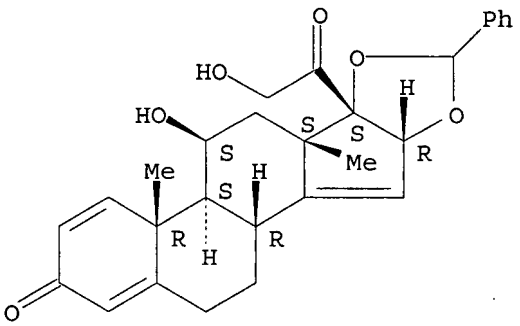
AB The title compds. (I; A = H, OH; R = H, Bz, alkanoyl; R3R4 = CR1R2; R1, R2 = H, alkyl; R1 = H, R2 = Ph; R1R2 = C4-5 alkylene; X = H, halo; X = A = H) were prepared Thus, 11β,21-dihydroxypregna-1,4,16-triene-3,20-dione 21-acetate was stirred with KMnO4 in HOAc to give I (A = OH, X = H,) (II; R = Ac, R3 = R4 = H) which was stirred with Me2CHCHO in MeCN containing aqueous HClO4 to give, after saponification, II (R = H, R3R4 = CHCHMe2). The latter gave
40.57% inhibition of contact dermatitis at 10 μg/mL in 2% croton oil applied topically to infant rat ear.

IT ***131918-65-5P***
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of, as antiinflammatory agent)

RN 131918-65-5 CAPLUS

CN Pregna-1,4,14-triene-3,20-dione, 11,21-dihydroxy-16,17-[(phenylmethylene)bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 18 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:214200 CAPLUS
DOCUMENT NUMBER: 106:214200
TITLE: Process for the preparation of cyclic ketals of corticoids and their C-21 esters
INVENTOR(S): Calatayud, Jose; Luna, Manuel
PATENT ASSIGNEE(S): Especialidades Latinas Medicamentos Universales S. A.,

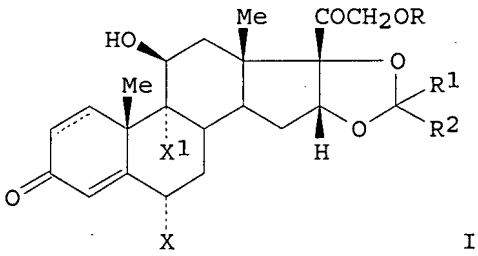
SOURCE: Spain
Span., 10 pp.
CODEN: SPXXAD

DOCUMENT TYPE: Patent
LANGUAGE: Spanish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ES 544825	A1	19860201	ES 1985-544825	19850703

PRIORITY APPLN. INFO.: ES 1985-544825 19850703

GI



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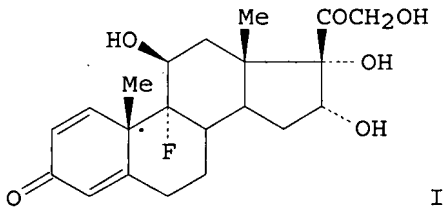


II

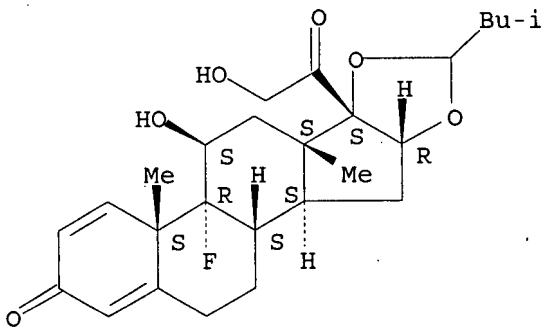
AB Title ketals I (R = H, alkanoyl; R1 = H, alkyl, alkenyl; R2 = alkyl, alkenyl; X, X1 = H, F; dashed line = optional double bond) are prepared as follows. Pregnadienedione derivative II (i.e. triamcinolone) was added in small portions to a solution of Me2CHCH2CHO, HClO4, and HOAc in dioxane, and the reaction was stirred to completion (TLC) and worked up to give I (R = R1 = X = H, R2 = CH2CHMe2, X1 = F, double bond present). A solution of the ketal in pyridine was treated with (Me2CHCO)2O, stirred for 24 h at room temperature, kept an addnl. 24 h, and worked up to give I (R = COCHMe2, R1 = X = H, R2 = CH2CHMe2, X1 = F, double bond present).

IT ***108166-17-2P***
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and esterification of)

RN 108166-17-2 CAPLUS

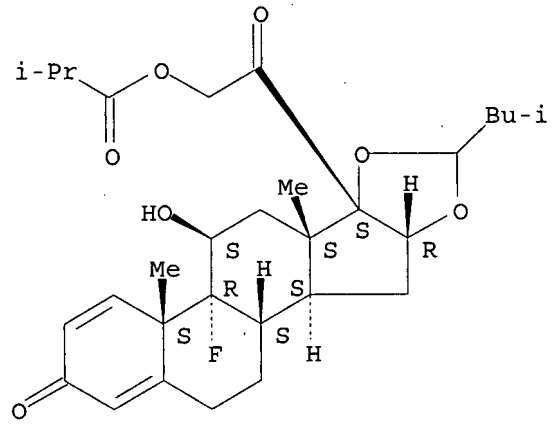
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[(3-methylbutylidene)bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

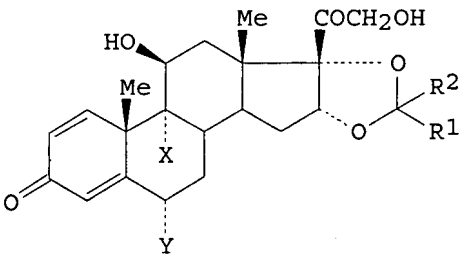


IT ***108166-18-3P***
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by ketalization and esterification of triamcinolone)
RN 108166-18-3 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11-hydroxy-16,17-[(3-methylbutylidene)bis(oxy)]-21-(2-methyl-1-propoxy)-, (11β,16α)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 19 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1984:523211 CAPLUS
DOCUMENT NUMBER: 101:123211
TITLE: Synthesis and pharmacological properties of some 16α,17α-acetals of 16α-hydroxyhydrocortisone, 16α-hydroxyprednisolone and fluorinated 16α-hydroxyprednisolones
AUTHOR(S): Thalen, Arne; Brattsand, Ralph; Gruvstad, Eva
CORPORATE SOURCE: Res. Dev. Lab., AB Draco, Lund, S-221 01, Swed.
SOURCE: Acta Pharmaceutica Suecica (1984), 21(2), 109-24
CODEN: APSXAS; ISSN: 0001-6675
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

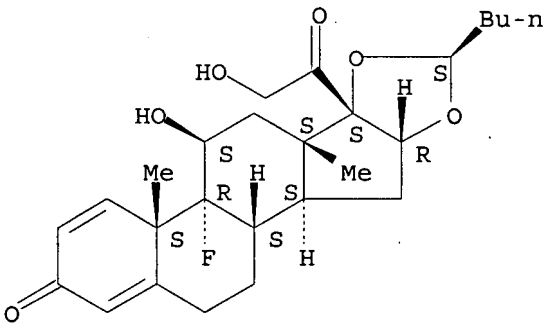
AB A number of nonsym. cyclic 16α,17α-acetals of 16α-hydroxyhydrocortisone and fluorinated, as well as nonfluorinated 16α-hydroxyprednisolones, (I, R1 = H, Me; R2 = C1-9 alkyl; X = Y = H, F) were prepared by perchloric acid-catalyzed acetalization. The occurrence of 2 conceivable C-22 epimers was demonstrated in all products. The epimer ratio (22R):(22S) was dependent on the carbonyl compound used in the reaction and on the fluoro substitution in the parent steroid ring nucleus. Structure-activity studies were performed in rat models. The topical anti-inflammatory potency in man was checked in the McKenzie-Stoughton vasoconstriction test. The nonsym. 16α,17α-acetals exhibited higher topical anti-inflammatory potency than the hitherto therapeutically used 16α,17α-acetonides. The highest activity was obtained through acetalization with butanal. Ring nucleus fluorination raised the systemic activity more than the topical anti-inflammatory potency. Hydrogenation of the 1,2-double bond had only a small influence on the topical potency but decreased the systemic activity considerably. The optimal topical:systemic activity ratio was obtained with the 16α,17α-acetal between butanal and 16α-hydroxyhydrocortisone and the corresponding 21-acetate.

IT ***51372-13-5P 51372-14-6P 84197-05-7P 84197-06-8P 84197-07-9P 84197-08-0P 84197-09-1P 84197-10-4P 84197-19-3P 84197-20-6P***
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and anti-inflammatory and glucocorticoid activities of, mol. structure in relation to)

RN 51372-13-5 CAPLUS

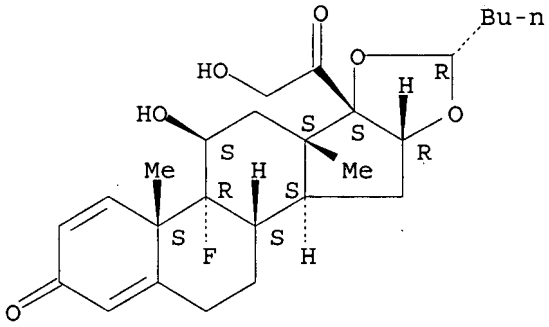
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



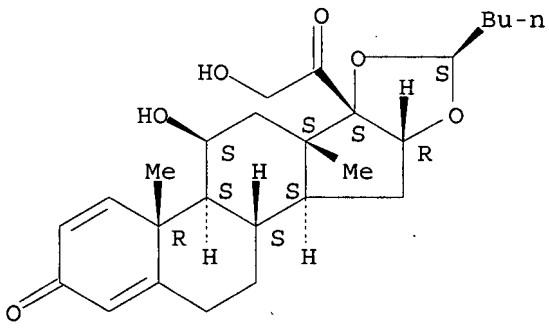
RN 51372-14-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [11β,16α(R)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 84197-05-7 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

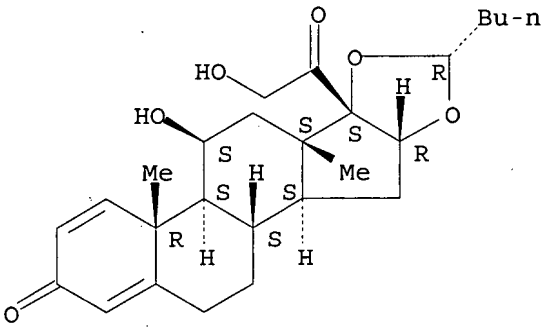
Absolute stereochemistry.



RN 84197-06-8 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-,

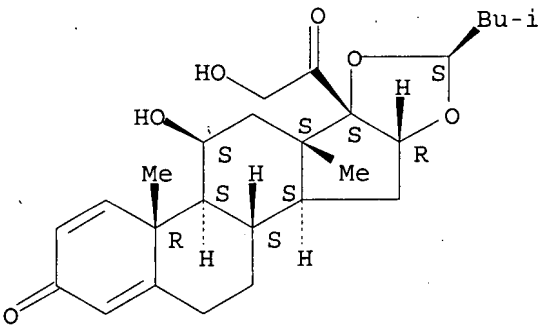
[11β,16α(R)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



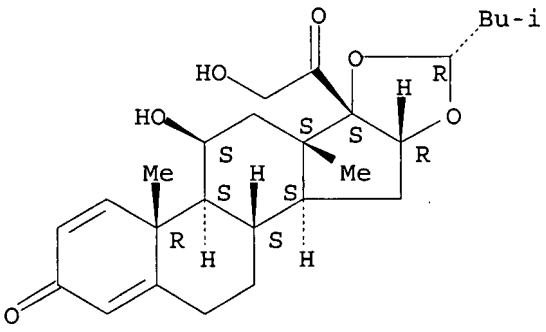
RN 84197-07-9 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 11,21-dihydroxy-16,17-[(3-methylbutylidene)bis(oxy)]-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



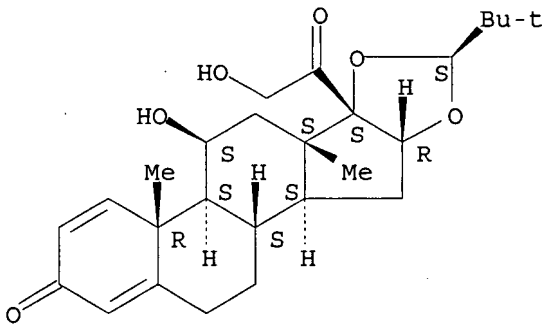
RN 84197-08-0 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 11,21-dihydroxy-16,17-[(3-methylbutylidene)bis(oxy)]-, [11β,16α(R)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



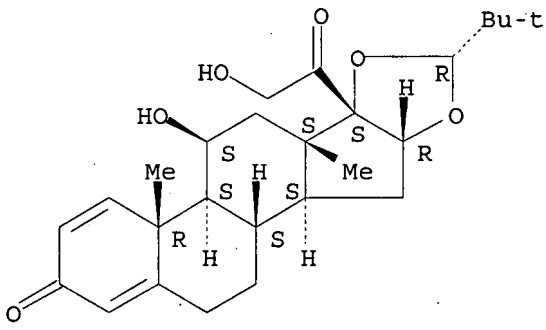
RN 84197-09-1 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[(2,2-dimethylpropylidene)bis(oxy)]-11,21-dihydroxy-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 84197-10-4 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[(2,2-dimethylpropylidene)bis(oxy)]-11,21-dihydroxy-, [11β,16α(R)]- (9CI) (CA INDEX NAME)

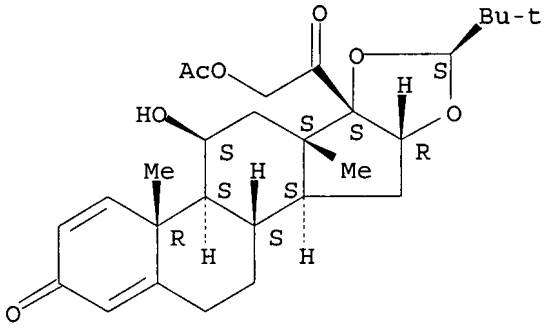
Absolute stereochemistry.



RN 84197-19-3 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 21-(acetyloxy)-16,17-[(2,2-

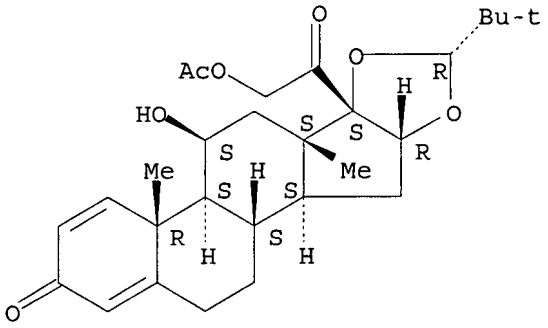
dimethylpropylidene)bis(oxy)]-11-hydroxy-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

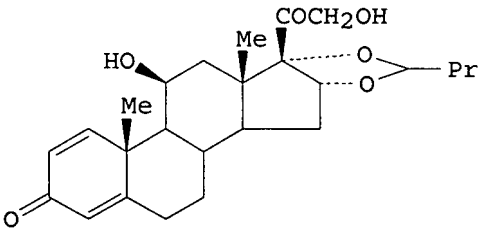


RN 84197-20-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 21-(acetyloxy)-16,17-[(2,2-dimethylpropylidene)bis(oxy)]-11-hydroxy-, [11β,16α(R)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 20 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1983:143711 CAPLUS
DOCUMENT NUMBER: 98:143711
TITLE: Epimers of budesonide and related corticosteroids. II. Structure elucidation by mass spectrometry
AUTHOR(S): Thalen, Arne
CORPORATE SOURCE: Res. Dev. Lab., AB Draco, Lund, S-221 01, Swed.
SOURCE: Acta Pharmaceutica Suecica (1982), 19(5), 327-54
CODEN: APSXAS; ISSN: 0001-6675
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

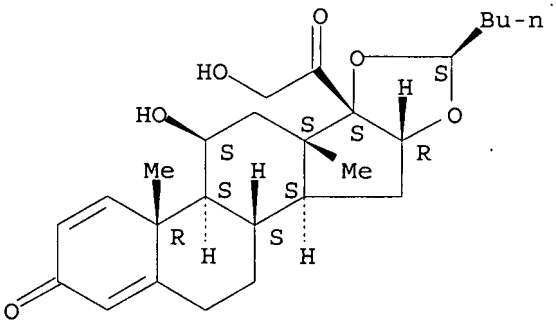
AB The mass spectral fragmentation of 16,17-acetals of 16α-hydroxyprednisolones and 16α-hydroxyhydrocortisones was examined, with special regard to budesonide (I). Peaks resulting from cleavage of ring B can be used to classify I as a Δ4- or Δ1,4-3-oxo steroid and to indicate if ring B has a C-6 substituent or ring C an 11β-hydroxy group. Reactions of diagnostic significance include partial loss of ring D, as well as elimination of the 17β side chain and the 22-alkyl substituent followed by loss of neutral mols. Formic acid is expelled from the latter fragment according to three routes, two of which are accompanied by rearrangement of the 21-OH hydrogen. The (22R)- and (22S)-epimers of each derivative have different abundance ratios of the C(17)-C(20)/C(22)-C(23) cleavage ability. If both epimers are available, a comparison of their electron impact spectra gives information on their configuration at C(22).

IT ***84197-05-7 84197-06-8 84197-09-1 84197-10-4 84197-19-3 84197-20-6 84965-33-3 84965-34-4***
RL: PRP (Properties)
(mass spectrum of, acetal configuration in relation to)

RN 84197-05-7 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

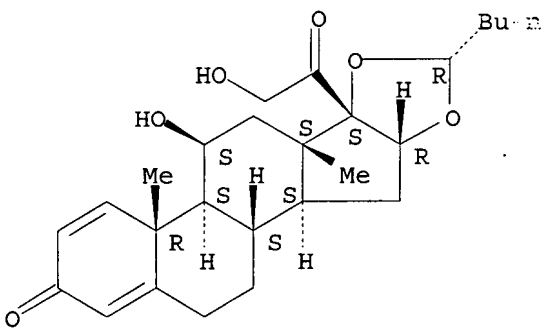
Absolute stereochemistry.



RN 84197-06-8 CAPLUS

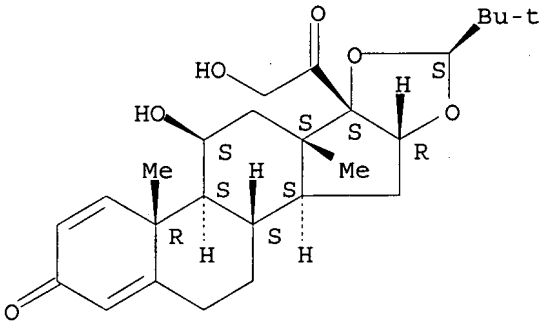
CN Pregna-1,4-diene-3,20-dione, 11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [11β,16α(R)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



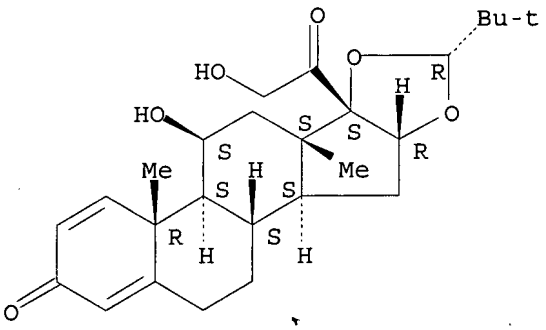
RN 84197-09-1 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[(2,2-dimethylpropylidene)bis(oxy)]-11,21-dihydroxy-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 84197-10-4 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[(2,2-dimethylpropylidene)bis(oxy)]-11,21-dihydroxy-, [11β,16α(R)]- (9CI) (CA INDEX NAME)

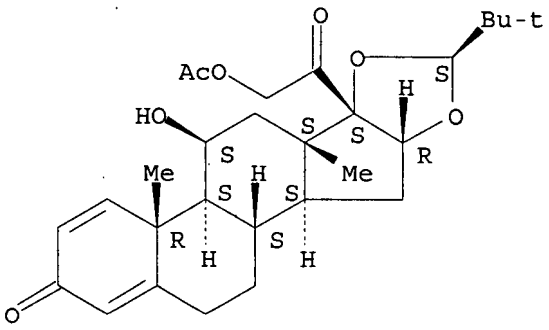
Absolute stereochemistry.



RN 84197-19-3 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 21-(acetyloxy)-16,17-[(2,2-

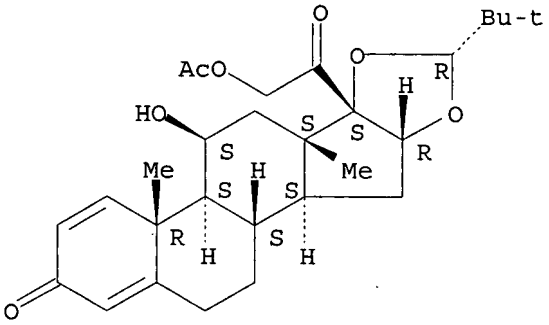
dimethylpropylidene)bis(oxy)]-11-hydroxy-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



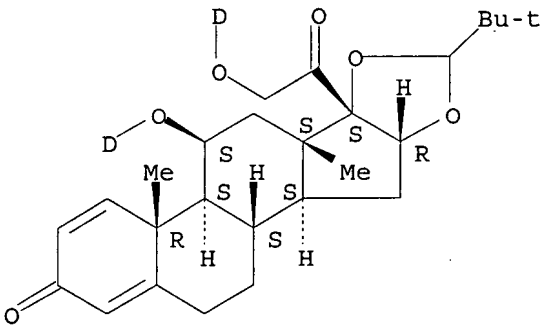
RN 84197-20-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 21-(acetyloxy)-16,17-[(2,2-dimethylpropylidene)bis(oxy)]-11-hydroxy-, [11β,16α(R)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



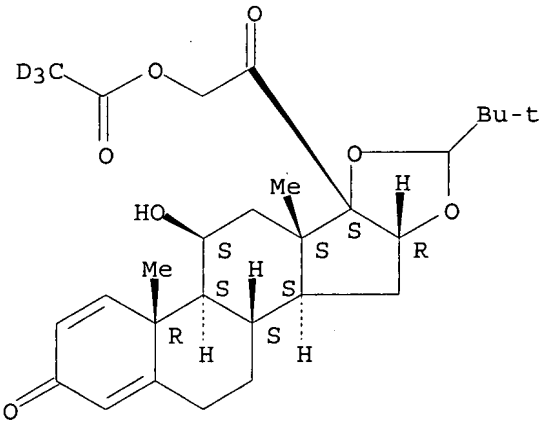
RN 84965-33-3 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[(2,2-dimethylpropylidene)bis(oxy)]-11,21-di(hydroxy-d)-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 84965-34-4 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 21-(acetyl-d3-oxy)-16,17-[(2,2-dimethylpropylidene)bis(oxy)]-11-hydroxy-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



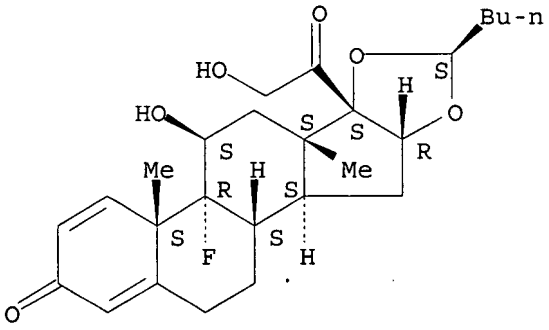
L37 ANSWER 21 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1983:54287 CAPLUS
DOCUMENT NUMBER: 98:54287
TITLE: Epimers of budesonide and related corticosteroids. I. Preparative resolution by chromatography on Sephadex LH-20
AUTHOR(S): Thalen, Arne; Nylander, Benkt
CORPORATE SOURCE: Res. Dev. Lab., AB Draco, Lund, S-221 01, Swed.
SOURCE: Acta Pharmaceutica Suecica (1982), 19(4), 247-66
CODEN: APSXAS; ISSN: 0001-6675
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Chromatog. on Sephadex LH-20 using CHCl3 or a mixed solvent system (heptane-CHCl3-EtOH) as a mobile phase was used for preparative resolution of epimeric mixts. of 16α,17α-acetals of 16α-hydroxyprednisolone, triamcinolone and fluocinolone. Optimal conditions for epimer separation in the mixed solvent system have been evaluated. The solute retention is strongly increased when fluorine is substituted into

9α and 6α,9α positions of the steroid nucleus. The separation factor is dependent on the size of the alkyl group substituted at the chiral center of the acetal. Esterification of the 21-hydroxy group reduces the capacity factor is both solvent systems but strongly increases the separation factor in the mixed solvent system. The influence of the solute structure and the mobile phase on the chromatog. resolution was demonstrated. Possible retention mechanisms are discussed on the basis of the mol. structures of the epimers.

IT ***51372-13-5 51372-14-6 84197-05-7***
84197-06-8 84197-07-9 84197-08-0
84197-09-1 84197-10-4 84197-11-5
84197-12-6 84197-19-3 84197-20-6
RL: PROC (Process)
(column chromatog. of, on Sephadex)

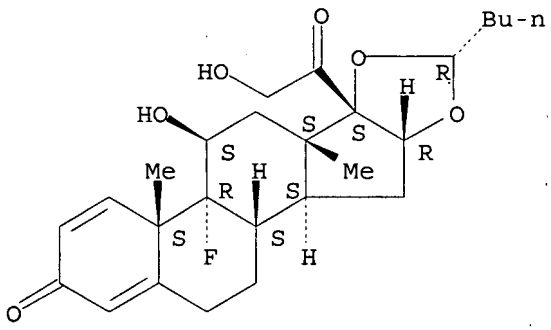
RN 51372-13-5 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



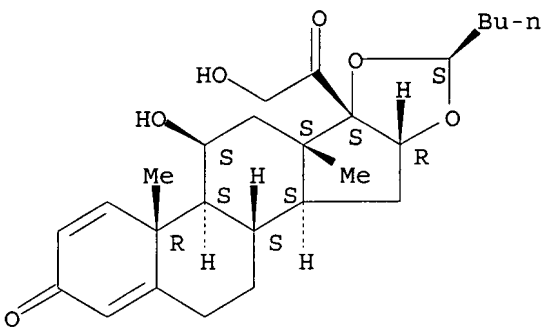
RN 51372-14-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [11β,16α(R)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



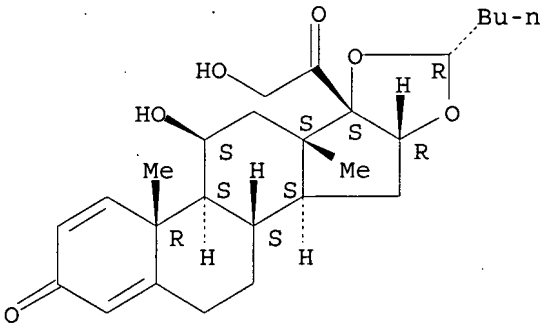
RN 84197-05-7 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



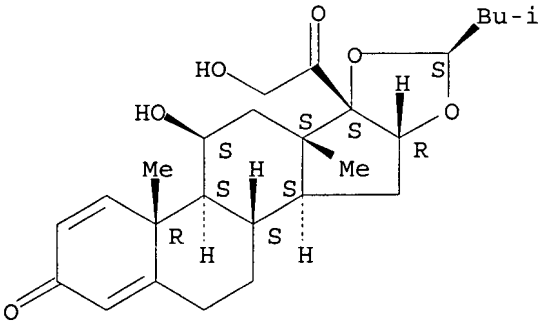
RN 84197-06-8 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [11β,16α(R)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



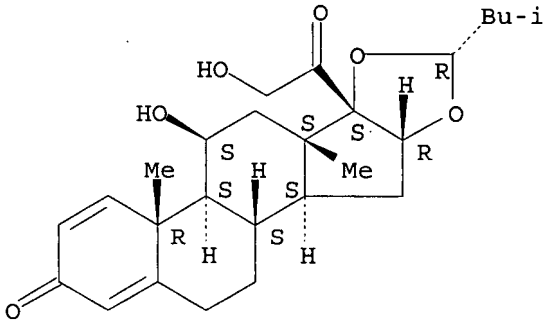
RN 84197-07-9 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 11,21-dihydroxy-16,17-[(3-methylbutylidene)bis(oxy)]-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



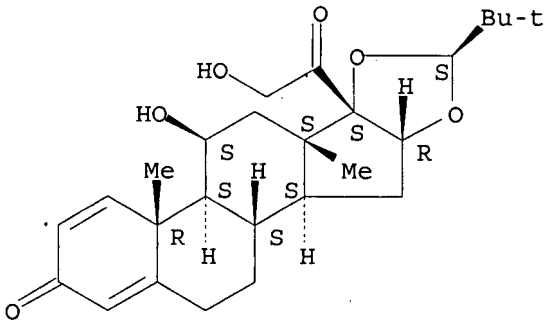
RN 84197-08-0 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 11,21-dihydroxy-16,17-[(3-methylbutylidene)bis(oxy)]-, [11β,16α(R)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



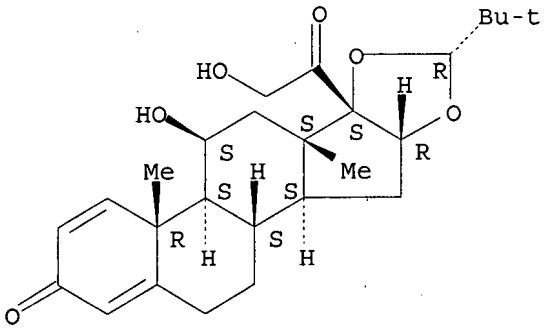
RN 84197-09-1 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[(2,2-dimethylpropylidene)bis(oxy)]-11,21-dihydroxy-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



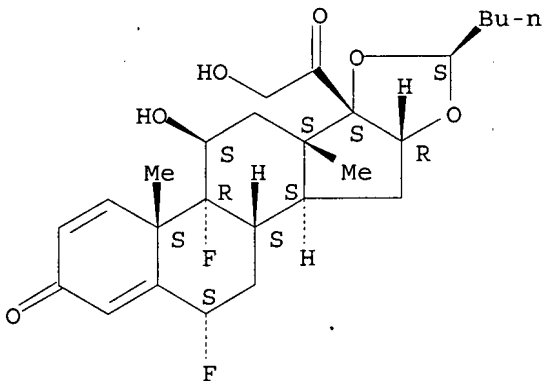
RN 84197-10-4 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[(2,2-dimethylpropylidene)bis(oxy)]-11,21-dihydroxy-, [11β,16α(R)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



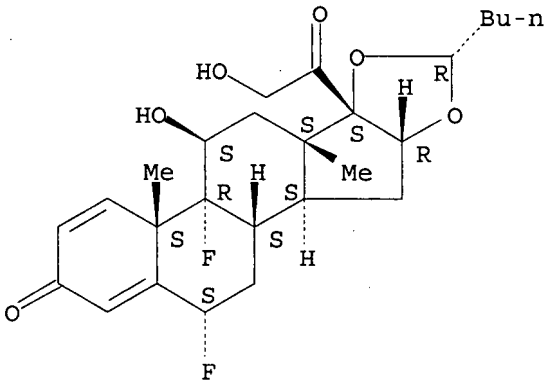
RN 84197-11-5 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 6,9-difluoro-11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [6α,11β,16α(S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



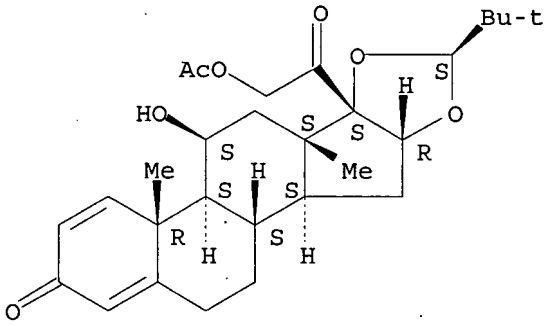
RN 84197-12-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 6,9-difluoro-11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [6α,11β,16α(R)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



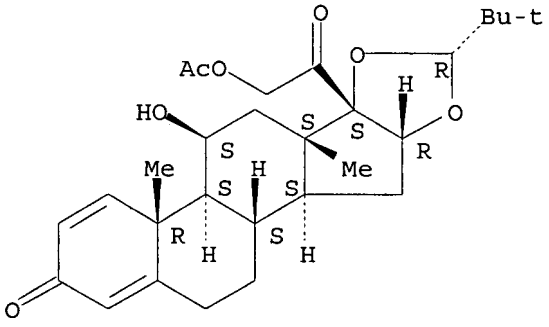
RN 84197-19-3 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 21-(acetyloxy)-16,17-[(2,2-dimethylpropylidene)bis(oxy)]-11-hydroxy-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

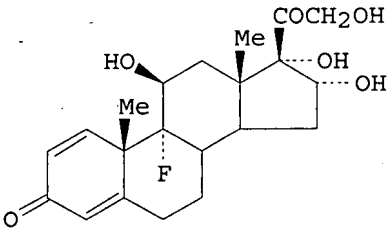


RN 84197-20-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 21-(acetyloxy)-16,17-[(2,2-dimethylpropylidene)bis(oxy)]-11-hydroxy-, [11β,16α(R)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 22 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1981:521211 CAPLUS
DOCUMENT NUMBER: 95:121211
TITLE: High pressure liquid chromatography of some triamcinolone derivatives
AUTHOR(S): Muck, S.; Galletti, B.; Celletti, P.
CORPORATE SOURCE: Sigma-Tau S.p.A., Rome, Italy
SOURCE: Bollettino Chimico Farmaceutico (1981), 120(4), 240-7
CODEN: BCFAAI; ISSN: 0006-6648
DOCUMENT TYPE: Journal
LANGUAGE: Italian
GI



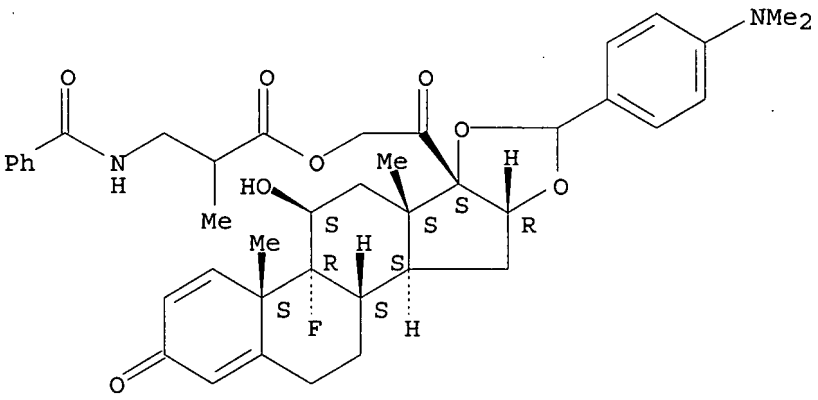
I

AB Triamcinolone (I) [124-94-7] and 4 of its derivs. were determined in pure form or in pharmaceutical formulations by reverse-phase high-pressure liquid chromatog. on Bondapak C18 with MeOH-H2O as mobile phase and UV detection at 254 nm. Hydrocortisone or one of the I analogs not present in the formulation being tested was used as internal standard Examples are given of extraction from ointments, followed by anal. The procedure was specific enough to sep. the steroids from their synthetic impurities, and the coeffs. of variation were very small.

IT ***78995-72-9 78995-73-0***
RL: ANT (Analyte); ANST (Analytical study)
(determination of, by high-pressure liquid chromatog.)

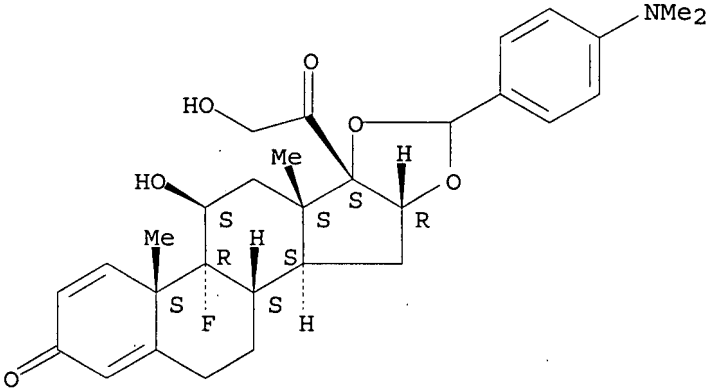
RN 78995-72-9 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 21-[3-(benzoylamino)-2-methyl-1-oxopropoxy]-16,17-[[[4-(dimethylamino)phenyl]methylene]bis(oxy)]-9-fluoro-11-hydroxy-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 78995-73-0 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[[[4-(dimethylamino)phenyl]methylene]bis(oxy)]-9-fluoro-11,21-dihydroxy-, (11β,16α)- (9CI) (CA INDEX NAME)

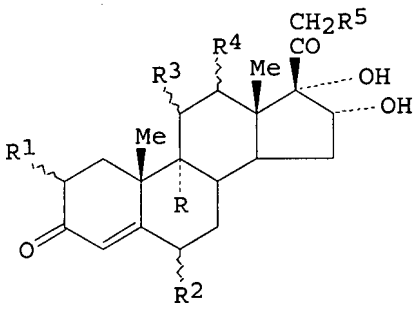
Absolute stereochemistry.



L37 ANSWER 23 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1980:639781 CAPLUS
DOCUMENT NUMBER: 93:239781
TITLE: 16,17-Dihydroxy steroid acetal and ketal derivatives
PATENT ASSIGNEE(S): Compania Espanola de Esteroides S. A., Spain
SOURCE: Span., 35 pp.
CODEN: SPXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Spanish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ES 483701	A3	19800516	ES 1979-483701	19790828
PRIORITY APPLN. INFO.:			ES 1979-483701	A3 19790828

GI



I

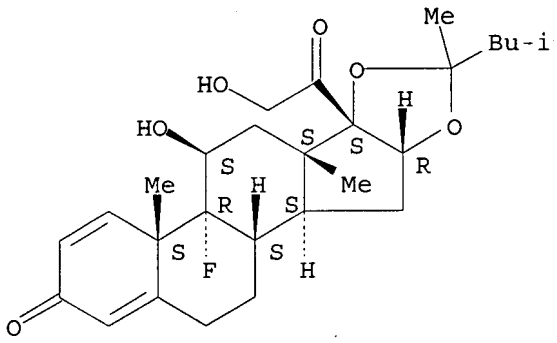
AB Acetals and ketals of pregnenediones I R, R4 = H, halo, OH, alkoxy; R1, R2 = H, Me; R3 = OH, acyloxy; R5 = H, halo, HO), antiinflammatory agents (no data), were prepared Thus, a ***suspension*** of triamcinolone and acetone containing HClO4 stored at room temperature for 3 h gave 95% 16,17-isopropylidenetriamcinolone (II), which on acetylation by Ac2O-pyridine gave the 21-acetate of II.

IT ***2794-91-4P 3092-82-8P 16463-85-7P 58404-35-6P***
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 2794-91-4 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[(1,3-dimethylbutylidene)bis(oxy)]-9-fluoro-11,21-dihydroxy-, (11β,16α)- (9CI) (CA INDEX NAME)

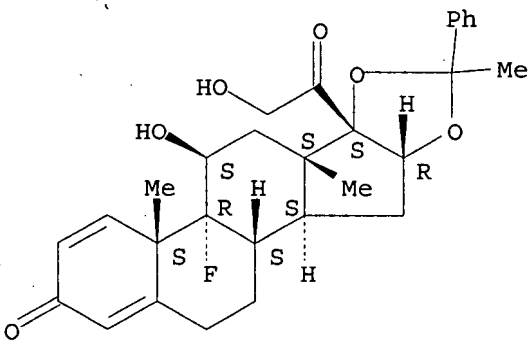
Absolute stereochemistry.



RN 3092-82-8 CAPLUS

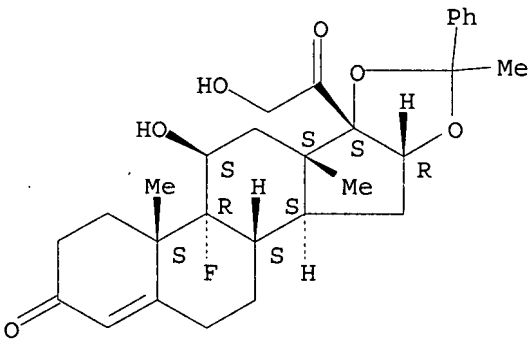
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[(1-phenylethylidene)bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



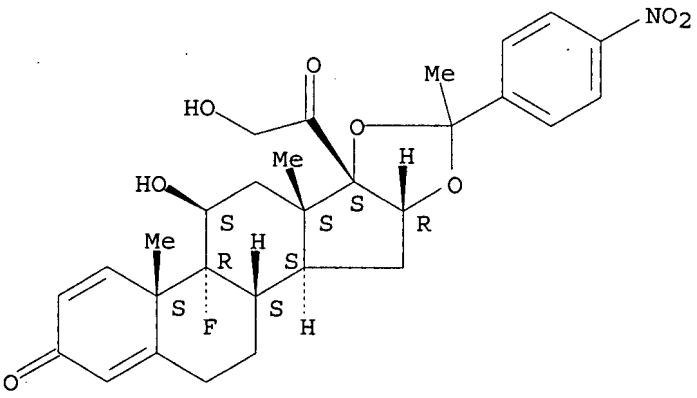
RN 16463-85-7 CAPLUS
CN Pregn-4-ene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[(1-phenylethylidene)bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

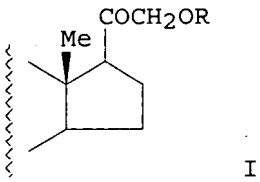


RN 58404-35-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[[1-(4-nitrophenyl)ethylidene]bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 24 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1979:529082 CAPLUS
DOCUMENT NUMBER: 91:129082
TITLE: Quantitative determination of α-ketol steroids by reaction with triphenyltetrazolium chloride (TTC)
AUTHOR(S): Heintz, Burkhard; Kalusa, R.
CORPORATE SOURCE: Inst. Arzneim., Bundesgesundheitsamtes, Berlin, 1000/65, Fed. Rep. Ger.
SOURCE: Deutsche Apotheker Zeitung (1979), 119(21), 808-9
CODEN: DAZEA2; ISSN: 0011-9857
DOCUMENT TYPE: Journal
LANGUAGE: German
GI



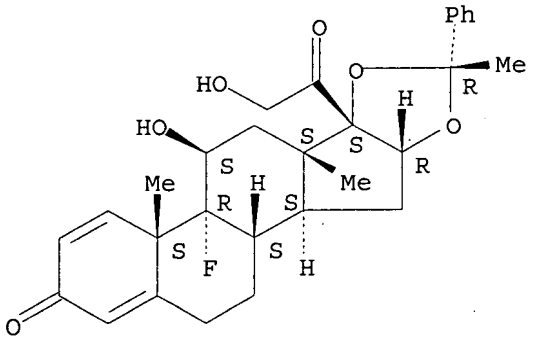
I

AB Twenty com. steroid α-ketols with the partial structure I (R = H, acyl) were determined by spectrophotometry with triphenyltetrazolium chloride [298-96-4] using the European Pharmacopeia method with a standard deviation of ±1.712% and reproducibility of ±2.8-4.1%, except for 4 compds. where the reproducibility varied from ±4.5 to ±5.7%.

IT ***7332-27-6***
RL: ANT (Analyte); ANST (Analytical study)
(determination of, by spectrophotometry, with triphenyltetrazolium chloride)

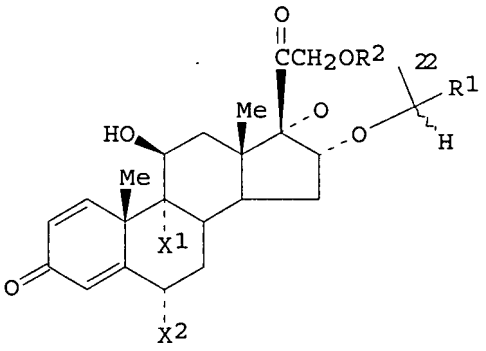
RN 7332-27-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[[(1R)-1-phenylethylidene]bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 25 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1979:29075 CAPLUS

DOCUMENT NUMBER: 90:29075
TITLE: Separation of epimers of budesonide and related corticosteroids by reversed bonded-phase liquid chromatography
AUTHOR(S): Wikby, A.; Nilsson, L.; Hallsas, G.
CORPORATE SOURCE: Res. Dev. Lab., AB Draco, Lund, Swed.
SOURCE: Journal of Chromatography (1978), 157(1), 51-64
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

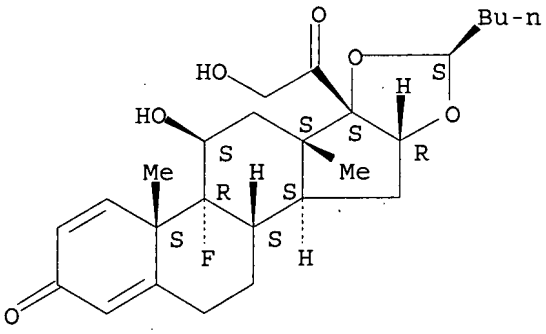


I

AB Optimal conditions for the separation of the epimers of homologous 16α,17α-acetals of 6α,9α-difluoro-(I,X1 = X2 = F), 9α-fluoro-(I, X1 = F,X2 = H) or non-fluorinated (I,X1 = X2 = H) 16α-hydroxyprednisolone on μBondapak C18 were evaluated. The separation factor increased strongly with increasing alkyl chain length at the asym. carbon, C-22, the position where configurational differences of the mols. are located, and weakly with F substitution at 6α and 9α positions. Acetate esterification of the C-21 hydroxy group did not influence the separation factor. Of the different types of organic modifier added to water in the eluents, EtOH gives the best results. Both the capacity and the separation factors increase with a decrease in the concentration of the organic modifier in the mobile phase, resulting in large improvements of separation of epimers. The retention mechanisms are discussed on the basis of mol. structures and current models of the chromatog. system.

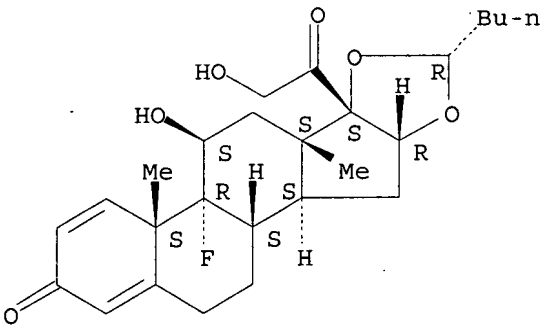
IT ***51372-13-5 51372-14-6***
RL: ANST (Analytical study)
(separation of, from epimer, reversed bonded-phase liquid chromatog. for)
RN 51372-13-5 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 51372-14-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [11β,16α(R)]- (9CI) (CA INDEX NAME)

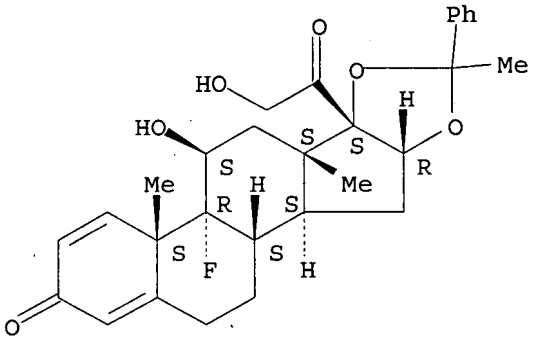
Absolute stereochemistry.



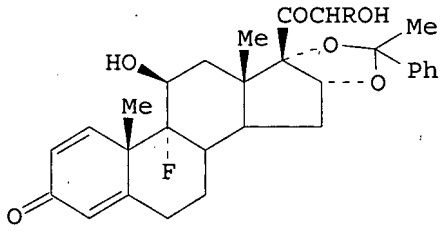
L37 ANSWER 26 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1977:145998 CAPLUS
DOCUMENT NUMBER: 86:145998
TITLE: Hexane/acetonitrile partition systems applied to assay of corticosteroid ointments
AUTHOR(S): Fairbrother, J. E.
CORPORATE SOURCE: Squibb Int. Dev. Lab., Moreton/Merseyside, UK
SOURCE: Methodological Developments in Biochemistry (1976), 5, 141-4
CODEN: MDBCAU
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The partitioning of corticosteroid ointments between hexane [110-54-3]-MeCN [75-05-8] effectively separated the corticosteroid from the petrolatum fraction of the ointment base and allowed the corticosteroid anal. by the nydrazid and blue tehazolium reactions without interference from the ointment base. Thus, triamcinolone acetonide [76-25-5], SQ 15,112 [***3092-82-8***], SQ 15,377 [62209-01-2], and halcinonide [3093-35-4] were separated from ointment bases by partitioning between hexane-MeCN.
IT ***3092-82-8***
RL: ANST (Analytical study)

(partitioning of, between acetonitrile-hexane, in ointment anal.)
RN 3092-82-8 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[(1-phenylethylidene)bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 27 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1976:483155 CAPLUS
DOCUMENT NUMBER: 85:83155
TITLE: Hemiacetal formation by some 17-ketolic corticosteroids
AUTHOR(S): Jackson, I. M.; Salmon, J. R.; Woolfenden, R. D. G.
CORPORATE SOURCE: Int. Dev. Lab., E. R. Squibb and Sons Ltd., Moreton/Merseyside, UK
SOURCE: Proceedings of the Analytical Division of the Chemical Society (1975), 12(11), 296-9
CODEN: PADSDZ; ISSN: 0306-1396
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I, R=H
II, R=$OCH_2CH(OH)Me$

AB Triamcinolone acetophenonide (I) [*3092-82-8*] dissolved in propylene glycol [57-55-6] and stored at 40° for 3 months showed 2 steroid components when analyzed by thin-layer chromatog., the major component was starting material. The minor decomposition product was shown to be a 21-hemiacetal (II) [*59866-15-8*] by mass spectrometry.
Similar decomposition was shown to occur in aqueous propylene glycol gels at pH 5.5
with oxidation by dissolved O, especially in the presence of transition metal ions,

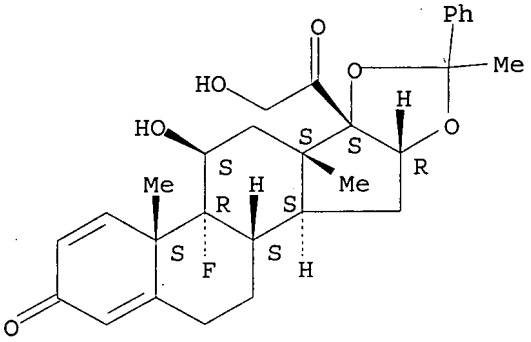
shown to be the mechanism. The addition of chelating agents and an antioxidant stabilized the prepns.

IT ***3092-82-8***
RL: RCT (Reactant); RACT (Reactant or reagent)
(decomposition of, in propylene glycol)

RN 3092-82-8 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[(1-phenylethylidene)bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

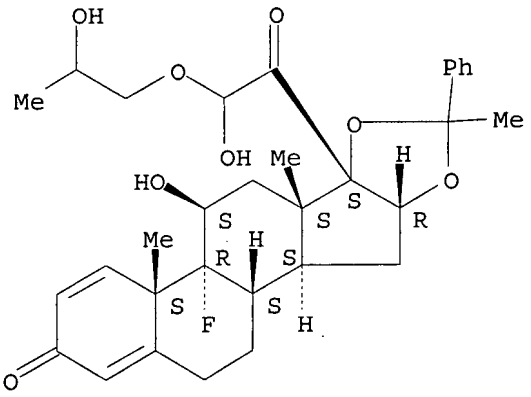


IT ***59866-15-8***
RL: FORM (Formation, nonpreparative)
(formation of, as triamcinolone acetophenonide decomposition product in propylene glycol)

RN 59866-15-8 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-21-(2-hydroxypropoxy)-16,17-[(1-phenylethylidene)bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 28 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1976:150840 CAPLUS
DOCUMENT NUMBER: 84:150840
TITLE: Separation of stereoisomeric mixtures into their

components

INVENTOR(S): Brattsand, Ralph L.; Af Ekenstam, Bo T.; Claeson, Karl G.; Thalen, Bror A.

PATENT ASSIGNEE(S): Aktiebolag Bofors, Swed.

SOURCE: U.S., 8 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent

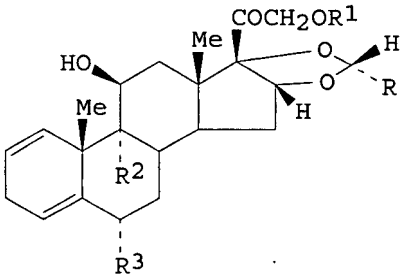
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

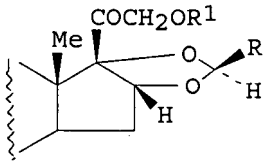
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3928326	A	19751223	US 1973-359913	19730514
US 3992534	A	19761116	US 1975-629390	19751106
US 3996359	A	19761207	US 1975-629493	19751106
PRIORITY APPLN. INFO.:			SE 1972-6645 A	19720519
			US 1973-359913 A2	19730514

GI



I



II

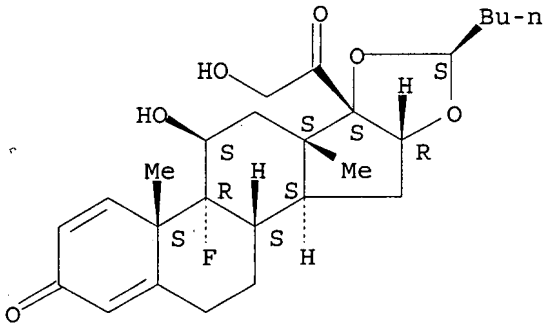
AB Cyclic steroidal acetals I and II (R = Me, Et, Pr, Bu, n-C5H11, n-C9H19, n-C7H15; R1 = H, Ac, valeryl, nicotinoyl, 2-benzofurancarbonyl; R2 = H, F; R3 = H, F) (60 compds.) were resolved by gel filtration on a Sephadex LH-20 column. One of the isomers of I and II (R = Et, R1 = R3 = H, R2 = F) had more than twice the antiinflammatory activity as triamcinolone acetonide based on granuloma test in rats.

IT ***51372-13-5P 51372-14-6P***
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 51372-13-5 CAPLUS

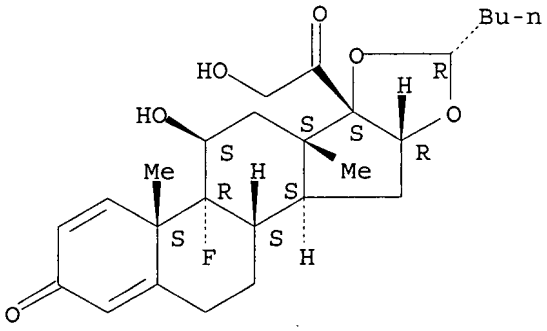
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 51372-14-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [11β,16α(R)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 29 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1976:90423 CAPLUS
DOCUMENT NUMBER: 84:90423
TITLE: Cyclic acetals and ketals of 9α-halogenosteroids
INVENTOR(S): Castelli, Pier P.; Ascheri, Antonio
PATENT ASSIGNEE(S): Lark S.p.A., Italy
SOURCE: Ger. Offen., 19 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2448548	A1	19751127	DE 1974-2448548	19741011
NL 7412537	A	19751119	NL 1974-12537	19740923
JP 50149661	A2	19751129	JP 1974-116855	19741012
JP 54008675	B4	19790417		
GB 1469575	A	19770406	GB 1974-43059	19750225

PRIORITY APPLN. INFO.: IT 1974-22866 A 19740517
GI For diagram(s), see printed CA Issue.

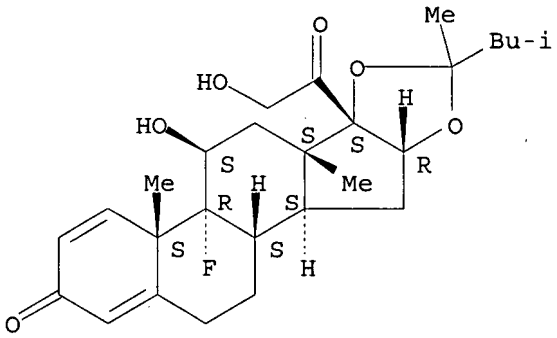
AB Halopregnadienediones I (R = F, Cl; R1 = H, F, R2 = H, Ac; X = CMe2, CMeC6H4NO2-4, CHPh, CMeCH2CHMe2) (8 compds.) were prepared by treating epoxides II with HF or HCl in the presence of carbonyl compds. Thus, to 50% HF cooled to -30° was added 1 g AcC6H4NO2-4 followed by 1 g II (R1 = R2 = H) to give 1.2 g I (R = F, R1 = R2 = H, X = CMeC6H4NO2-4). Similarly 9-fluoro-16α-hydroxyhydrocortisone acetonide was prepared from the corresponding epoxypregnenedione.

IT ***2794-91-4P 58404-35-6P 58404-36-7P***
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 2794-91-4 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[(1,3-dimethylbutylidene)bis(oxy)]-9-fluoro-11,21-dihydroxy-, (11β,16α)- (9CI) (CA INDEX NAME)

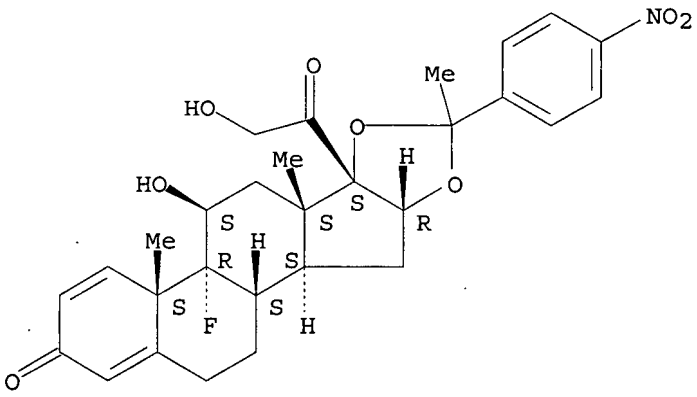
Absolute stereochemistry.



RN 58404-35-6 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[[1-(4-nitrophenyl)ethylidene]bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

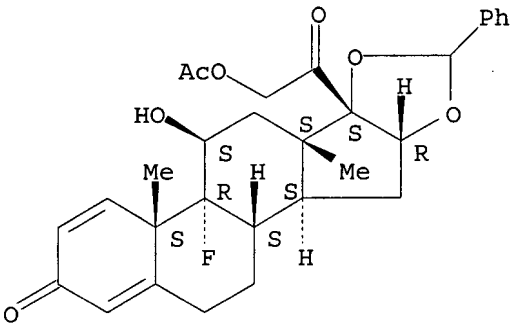
Absolute stereochemistry.



RN 58404-36-7 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 21-(acetyloxy)-9-fluoro-11-hydroxy-16,17-[(phenylmethylene)bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 30 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1975:497730 CAPLUS
DOCUMENT NUMBER: 83:97730
TITLE: Pregnanoic acid derivatives
INVENTOR(S): Laurent, Henry; Annen, Klaus; Wiechert, Rudolf; Hofmeister, Helmut; Wendt, Hans
PATENT ASSIGNEE(S): Schering A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 31 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2360444	A1	19750605	DE 1973-2360444	19731130
DK 135380	B	19770418	DK 1973-6887	19731218
GB 1457264	A	19761201	GB 1973-58774	19731219
AU 7363843	A1	19750626	AU 1973-63843	19731220
FI 52735	B	19770801	FI 1973-3928	19731220
SE 402111	C	19781102	SE 1973-17245	19731220
BE 808985	A1	19740621	BE 1973-139171	19731221
DD 108290	C	19740912	DD 1973-175620	19731221
ES 421713	A1	19760416	ES 1973-421713	19731221
AT 7310739	A	19770315	AT 1973-10739	19731221
AT 340072	B	19771125		
CA 1007221	A1	19770322	CA 1973-188725	19731221
CH 618185	A	19800715	CH 1973-18076	19731221
RO 72711	P	19820909	RO 1973-85689	19731221
NL 7317656	A	19740625	NL 1973-17656	19731222
NL 183763	B	19880816		
NL 183763	C	19890116		
JP 49094660	A2	19740909	JP 1974-4869	19731222
JP 59012680	B4	19840324		
FR 2211259	A1	19740719	FR 1973-46233	19731226
AT 350746	B	19790611	AT 1976-4366	19760615
AT 7604366	A	19781115		
AT 350747	B	19790611	AT 1976-4367	19760615
AT 7604367	A	19781115		
CH 618447	A	19800731	CH 1978-11358	19781103

PRIORITY APPLN. INFO.:

DE 1972-2264003	A	19721222
DE 1973-2360444	A	19731130
CH 1973-18076	A	19731221
AT 1973-10739	A	19760615

GI For diagram(s), see printed CA Issue.

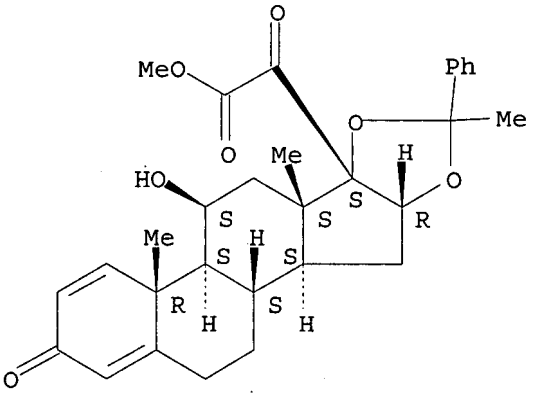
AB Pregnadienoates I (R = H, Cl, F; R1 = Ac, EtCO, HCO; R2 = R3 = Me; R2 = Ph, R3 = H; R4 = Me, Bu, Et) (9 compds.), useful in treatment of dermatitis (no data), were prepared from II (R5 = H, Ac) by ketalization with R2R3CO, hydrolysis and oxidation with Cu(OAc)2 followed by oxidation with MnO2. I (R1 = H) was acylated by (R1)2O.

IT ***53980-76-0 56723-14-9***
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of)

RN 53980-76-0 CAPLUS

CN Pregna-1,4-dien-21-oic acid, 11-hydroxy-3,20-dioxo-16,17-[(1-phenylethylidene)bis(oxy)]-, methyl ester, (11β,16α)- (9CI) (CA INDEX NAME)

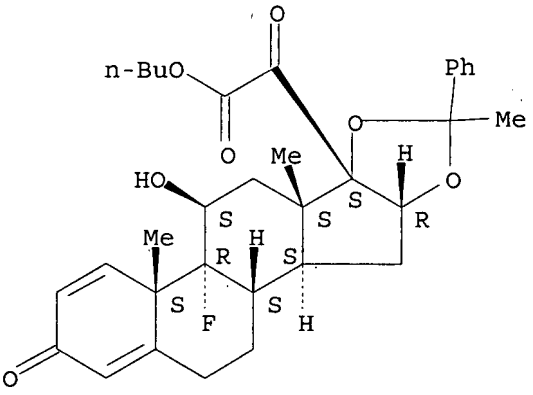
Absolute stereochemistry.



RN 56723-14-9 CAPLUS

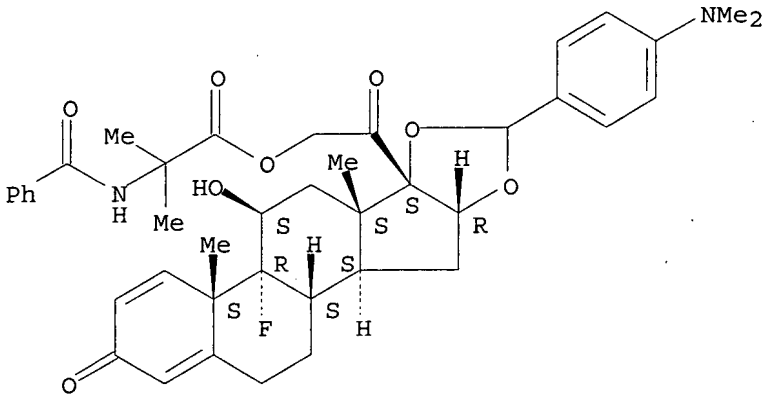
CN Pregna-1,4-dien-21-oic acid, 9-fluoro-11-hydroxy-3,20-dioxo-16,17-[(1-phenylethylidene)bis(oxy)]-, butyl ester, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 31 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1975:165143 CAPLUS
DOCUMENT NUMBER: 82:165143
TITLE: Comparative evaluation of the topical antiphlogistic and ocular hypertensive activities of steroids in eye lotions
AUTHOR(S): Troilo Ordonez, E.
CORPORATE SOURCE: Res. Lab., Sigma-Tau S.p.A., Pomezia, Italy
SOURCE: Arzneimittel-Forschung (1974), 24(12), 2018-21
CODEN: ARZNAD; ISSN: 0004-4172
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 16,17-[P-(dimethylamino)benzylidene]triamcinolone 21-[β-(benzoylamino)isobutyrate] (I) [***54850-20-3***] had a greater local antiinflammatory activity than β-methasone 17-valerate [2152-44-5] in rats, and was better tolerated in regard to side-effects, such as intraocular hypertension, reduced body growth, and mortality following high doses. I may be a suitable steroid for the preparation of antiinflammatory eye lotions.
IT ***54850-20-3***
RL: BIOL (Biological study)
(eye inflammation inhibition by)
RN 54850-20-3 CAPLUS
CN Alanine, N-benzoyl-2-methyl-, (11β,16α)-16,17-[[[4-(dimethylamino)phenyl]methylene]bis(oxy)]-9-fluoro-11-hydroxy-3,20-dioxopregna-1,4-dien-21-yl ester (9CI) (CA INDEX NAME)

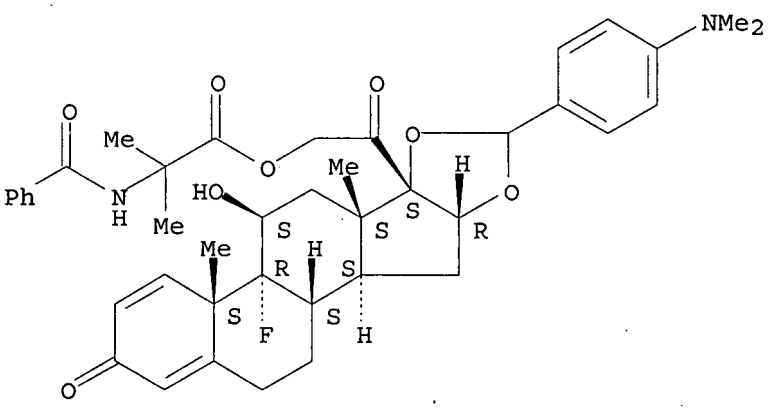
Absolute stereochemistry.



L37 ANSWER 32 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1975:165142 CAPLUS
DOCUMENT NUMBER: 82:165142
TITLE: Pharmacologic and toxicologic properties of a new topically active antiinflammatory steroid
AUTHOR(S): Troilo Ordonez, E.
CORPORATE SOURCE: Res. Lab., Sigma-Tau S.p.A., Pomezia, Italy
SOURCE: Arzneimittel-Forschung (1974), 24(12), 2015-18
CODEN: ARZNAD; ISSN: 0004-4172
DOCUMENT TYPE: Journal

LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB On topical administration, 16,17-[4-(dimethylamino)benzylidene]triamcinolone 21-[2-(benzoylamino)-2-methylpropionate] (I) [***54850-20-3***] had a 19.8 times as high antiinflammatory activity as triamcinolone acetonide [76-25-5] in rats, whereas side effects were much lower.
IT ***54850-20-3***
RL: BIOL (Biological study)
(inflammation inhibitor)
RN 54850-20-3 CAPLUS
CN Alanine, N-benzoyl-2-methyl-, (11β,16α)-16,17-[[[4-(dimethylamino)phenyl]methylene]bis(oxy)]-9-fluoro-11-hydroxy-3,20-dioxopregna-1,4-dien-21-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 33 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1974:505817 CAPLUS
DOCUMENT NUMBER: 81:105817
TITLE: 16α,17α-(Isopropylidenedioxy)-3,20-dioxopregn-4-en-21-oates
INVENTOR(S): Laurent, Henry; Wiechert, Rudolf; Hofmeister, Helmut; Mengel, Klaus; Wendt, Hans
PATENT ASSIGNEE(S): Schering A.-G.
SOURCE: Ger. Offen., 42 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2264003	A1	19740704	DE 1972-2264003	19721222
DE 2264003	C2	19821104		
CS 168467	P	19760629	CS 1973-8731	19731217
DK 135380	B	19770418	DK 1973-6887	19731218
GB 1457264	A	19761201	GB 1973-58774	19731219
FI 52735	B	19770801	FI 1973-3928	19731220
HU 171521	P	19780128	HU 1973-SC458	19731220
SE 402111	C	19781102	SE 1973-17245	19731220

BE 808985	A1	19740621	BE 1973-139171		19731221
DD 108290	C	19740912	DD 1973-175620		19731221
ZA 7309656	A	19741127	ZA 1973-9656		19731221
ES 421713	A1	19760416	ES 1973-421713		19731221
AT 7310739	A	19770315	AT 1973-10739		19731221
AT 340072	B	19771125			
CA 1007221	A1	19770322	CA 1973-188725		19731221
NO 140825	C	19791121	NO 1973-4918		19731221
NO 140825	B	19790813			
CH 618185	A	19800715	CH 1973-18076		19731221
RO 72490	P	19800715	RO 1973-85690		19731221
RO 75386	P	19801130	RO 1973-85692		19731221
RO 71549	P	19821026	RO 1973-77073		19731221
NL 7317656	A	19740625	NL 1973-17656		19731222
NL 183763	B	19880816			
NL 183763	C	19890116			
JP 49094660	A2	19740909	JP 1974-4869		19731222
JP 59012680	B4	19840324			
FR 2211259	A1	19740719	FR 1973-46233		19731226
SU 555856	D	19770425	SU 1975-2115267		19750321
AT 350746	B	19790611	AT 1976-4366		19760615
AT 7604366	A	19781115			
AT 350747	B	19790611	AT 1976-4367		19760615
AT 7604367	A	19781115			
CH 618447	A	19800731	CH 1978-11358		19781103
PRIORITY APPLN. INFO.:			DE 1972-2264003	A	19721222
			DE 1973-2360444	A	19731130
			CH 1973-18076	A	19731221
			AT 1973-10739	A	19760615

GI For diagram(s), see printed CA Issue.

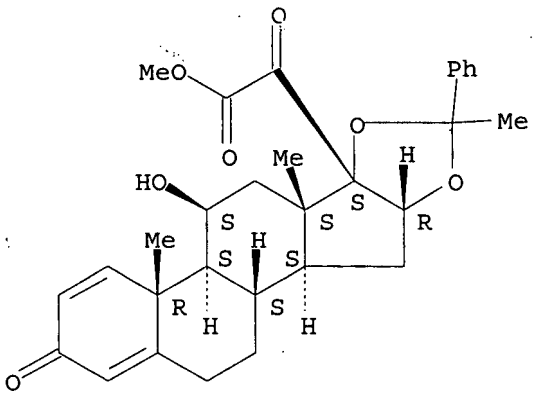
AB Twenty-nine pregnene derivs. I, II, and III (R = CO2R1, R1 = e.g. Me, Bu, or C5H11; R2 = H, F, or Me; R3 = H, F, or Cl; R4 = H, OH, Cl, or F), useful as antiinflammatory agents (no data), were prepared by 2-step oxidation of I, II, and III (R = CH2OH) via I, II, and III (R = CHO) in R1OH in the presence of KCN optionally followed by appropriate conversions, e.g. transesterification, saponification, or dehydrogenation.

IT ***53980-76-0P***
RL: SPN (Synthetic preparation); PREP (Preparation).
(preparation of)

RN 53980-76-0 CAPLUS

CN Pregna-1,4-dien-21-oic acid, 11-hydroxy-3,20-dioxo-16,17-[(1-phenylethylidene)bis(oxy)]-, methyl ester, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 34 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1974:48242 CAPLUS
DOCUMENT NUMBER: 80:48242
TITLE: Separation of antiinflammatory 16α,17α-(methylenedioxy)pregnadiene stereoisomers by gel chromatography
INVENTOR(S): Brattsand, Ralph L.; Ekenstam, Bo T. af; Claeson, Karl G.; Thalen, Bror A.
PATENT ASSIGNEE(S): Aktiebolag Bofors
SOURCE: Ger. Offen., 25 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

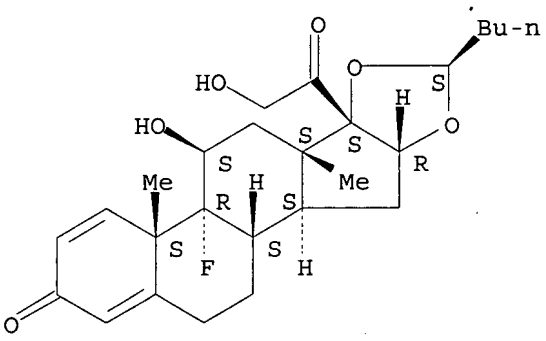
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2323216	A1	19731129	DE 1973-2323216	19730509
DE 2323216	B2	19771103		
SE 378110	B	19750818	SE 1972-6645	19720519
ZA 7302956	A	19740424	ZA 1973-2956	19730501
AU 7355252	A1	19741107	AU 1973-55252	19730504
GB 1428416	A	19760317	GB 1973-22195	19730509
FI 50711	B	19760301	FI 1973-1543	19730514
DK 133249	B	19760412	DK 1973-2770	19730517
BE 799728	A1	19730917	BE 1973-131271	19730518
NL 7306979	A	19731121	NL 1973-6979	19730518
NL 175917	B	19840816		
NL 175917	C	19850116		
FR 2185406	A1	19740104	FR 1973-18126	19730518
SU 468408	D	19750425	SU 1973-1918554	19730518
CA 1003402	A1	19770111	CA 1973-171781	19730518
JP 49041379	A2	19740418	JP 1973-56234	19730519
JP 54007794	B4	19790410		

PRIORITY APPLN. INFO.: SE 1972-6645 A 19720519
GI For diagram(s), see printed CA Issue.
AB Twenty-seven pregnanes I (R = R1 = H or alkyl, e.g. Me, Et, or n-C9H19; R2 = e.g. H, nicotinoyl, or Ac; R3, R4 = H or F) obtained by known acetalization of the 16α,17α-diols were separated into the stereoisomers by gel filtration on Sephadex LH 20. The I stereoisomer B

of the higher relative optical rotation, larger retention volume, and lower δ value for 18-Me in NMR spectra had higher antiinflammatory activity in the granuloma test in rats than the stereoisomers A or the mixts.

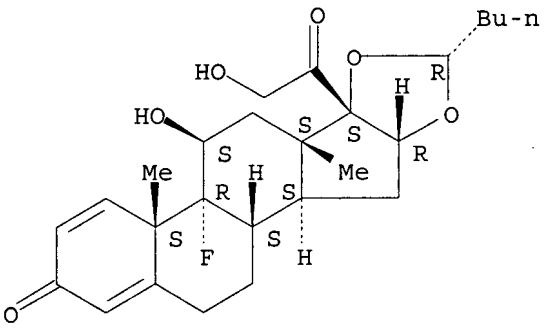
IT ***51372-13-5P 51372-14-6P***
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 51372-13-5 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [11β,16α(S)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



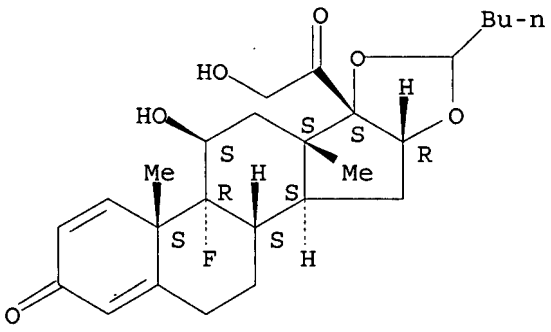
RN 51372-14-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, [11β,16α(R)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT ***51333-16-5***
RL: RCT (Reactant); RACT (Reactant or reagent)
(stereoisomer separation, by gel filtration)
RN 51333-16-5 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 35 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1974:48241 CAPLUS
DOCUMENT NUMBER: 80:48241
TITLE: Antiinflammatory 16α,17α-(methylenedioxy)pregnadiene-3,20-diones
INVENTOR(S): Brattsand, Ralph L.; Ekenstam, Bo T. af; Claeson, Karl G.; Thalen, Bror A.
PATENT ASSIGNEE(S): Aktiebolag Bofors
SOURCE: Ger. Offen., 26 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2323215	A1	19731129	DE 1973-2323215	19730509
DE 2323215	B2	19770811		
SE 378109	B	19750818	SE 1972-6644	19720519
ZA 7302955	A	19740424	ZA 1973-2955	19730501
AU 7355253	A1	19741107	AU 1973-55253	19730504
GB 1429922	A	19760331	GB 1973-22194	19730509
ES 414673	A1	19760701	ES 1973-414673	19730511
US 3929768	A	19751230	US 1973-360051	19730514
FI 50631	B	19760202	FI 1973-1542	19730514
CH 595400	A	19780215	CH 1973-6999	19730516
DD 104295	C	19740312	DD 1973-170888	19730517
DK 134783	B	19770117	DK 1973-2772	19730517
BE 799727	A1	19730917	BE 1973-131270	19730518
NL 7306978	A	19731121	NL 1973-6978	19730518
NL 177493	B	19850501		
NL 177493	C	19851001		
FR 2185405	A1	19740104	FR 1973-18125	19730518
SU 470954	D	19750515	SU 1973-1923451	19730518
HU 166680	P	19750528	HU 1973-BO1438	19730518
AT 7304365	A	19750615	AT 1973-4365	19730518
AT 328630	B	19760325		
PL 87765	P	19760731	PL 1973-162650	19730518
CA 1002938	A1	19770104	CA 1973-171785	19730518
CS 178129	P	19770831	CS 1973-3590	19730518
NO 139640	B	19790108	NO 1973-2059	19730518
NO 139640	C	19790418		

JP 49041378	A2	19740418	JP 1973-56233	19730519
JP 55021760	B4	19800612		
US 3983233	A	19760928	US 1975-629389	19751106
PRIORITY APPLN. INFO.:			SE 1972-6644 A	19720519
			US 1973-360051 A2	19730514

GI For diagram(s), see printed CA Issue.

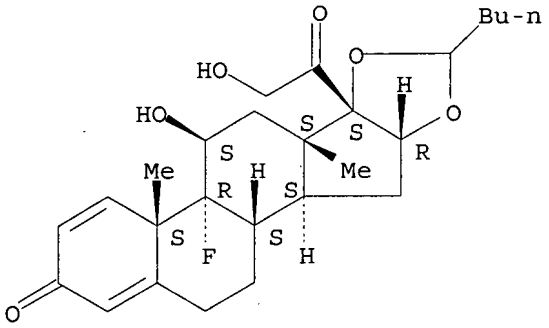
AB Thirty-eight (methylenedioxy)-pregnadienediones I (R = Et, Pr, Bu, C5H11, or n-C9H19; R1 = H or nicotinoyl, isonicotinoyl, Ac, COBu, benzofurylcarbonyl, or OP(O)(ONa)2; R2, R3 = H or F) were prepared by reaction of the 16α,17α-diol with RCHO in the presence of HClO4 in an inert solvent, e.g. dioxane, optionally followed by esterification. I had antiinflammatory activities in rats.

IT ***51333-16-5P***
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 51333-16-5 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[pentylidenebis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 36 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1974:27428 CAPLUS

DOCUMENT NUMBER: 80:27428

TITLE: Antiphlogistic triamcinolone derivative

PATENT ASSIGNEE(S): Sigma-Tau Industrie Farmaceutiche Riunite S.p.A.

SOURCE: Ger. Offen., 8 pp.
CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2318767	A1	19731108	DE 1973-2318767	19730413
DE 2318767	B2	19791108		
DE 2318767	C3	19800717		
NO 138568	C	19781004	NO 1973-1593	19730416
DK 130994	B	19750512	DK 1973-2184	19730418
GB 1379867	A	19750108	GB 1973-19162	19730419
US 3886145	A	19750527	US 1973-353680	19730423
JP 49047369	A2	19740508	JP 1973-47194	19730425

JP 5103007	B4	19760830			
AT 323910	B	19750811	AT 1973-3654		19730425
CH 571027	A	19751231	CH 1973-5914		19730425
DE 2321187	A1	19731031	DE 1973-2321187		19730426
AU 7354904	A1	19741031	AU 1973-54904		19730426
SE 395276	B	19770808	SE 1973-5901		19730426
NL 7305897	A	19731030	NL 1973-5897		19730427
NL 178422	B	19851016			
NL 178422	C	19860317			
FR 2183093	A1	19731214	FR 1973-15484		19730427
ES 414163	A1	19760216	ES 1973-414163		19730427
BE 798957	A1	19730816	BE 1973-130624		19730430
IN 148707	A	19810516	IN 1978-CA673		19780617
PRIORITY APPLN. INFO.:			IT 1972-49946	A	19720428
			GB 1972-19922	A	19720428

GI For diagram(s), see printed CA Issue.

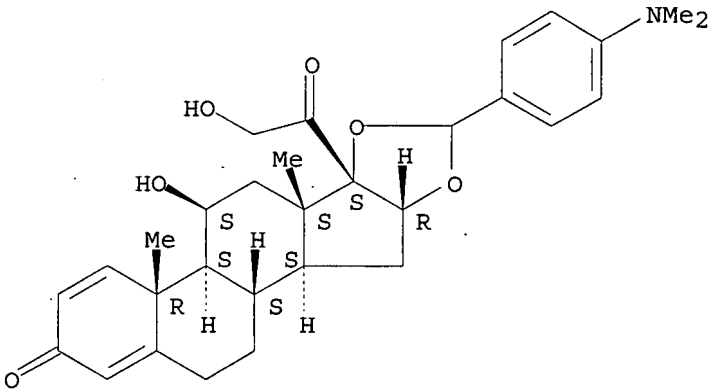
AB The triamcinolone derivative I was prepared in 80% yield by reaction of triamcinolone with 4-Me2NC6H4CHO in DMF in the presence of HClO4 and subsequent treatment with in situ prepared BzNHCH2CHMeCOCl in DMF at 0-5°. I had stronger antiphlogistic activities than the corresponding acetonide and β-methasone 17-valerate.

IT ***51242-00-3P***
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 51242-00-3 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[[[4-(dimethylamino)phenyl]methylene]bis(oxy)]-11,21-dihydroxy-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 37 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	1968:56977 CAPLUS
DOCUMENT NUMBER:	68:56977
TITLE:	Structure and mechanism of action of steroid hormones and analogs
AUTHOR(S):	Bush, Ian E.
CORPORATE SOURCE:	Worcester Found. Exptl. Biol., Shrewsbury, MA, USA
SOURCE:	Proc. Int. Congr. Horm. Steroids, 2nd (1967), Meeting Date 1966, 60-7 CODEN: 19QDA3
DOCUMENT TYPE:	Conference

LANGUAGE: English

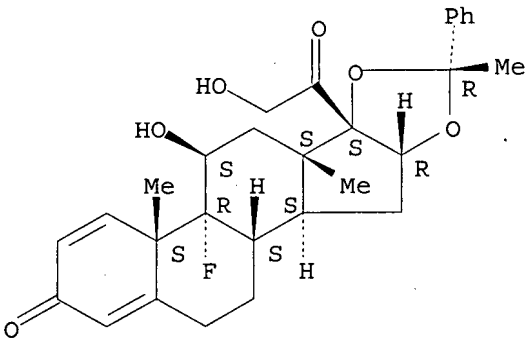
AB A review and interpretation, with some new data. It is possible that new protein synthesis induced by hormones is not invariably via the synthesis of messenger RNA. New data on the structure of triamcinolone 16α,17β-acetophenonide indicate that the previously assigned positions of the Me and the Ph groups should be interchanged. 37 references.

IT ***7332-27-6***
RL: PRP (Properties)
(stereochemistry of)

RN 7332-27-6 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[[(1R)-1-phenylethylidene]bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 38 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1967:479235 CAPLUS

DOCUMENT NUMBER: 67:79235

TITLE: Structure-cytotoxicity relations of some corticosteroids

AUTHOR(S): Perlman, David; Semar, Joan B.; Krakower, Gerald W.; Diassi, Patrick A.

CORPORATE SOURCE: Squibb Inst. for Med. Res., New Brunswick, NJ, USA

SOURCE: Cancer Chemotherapy Reports (1967), 51(4), 225-8
CODEN: CNCRA6; ISSN: 0069-0112

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Structure-cytotoxicity relations of 42 corticosteroids were examined using Earle's strain L cells (NCTC 929). The most active compds. were those having the 9α-fluoro-11β-hydroxy moieties and either a 17α-acetoxy or a 16α,17α-isopropylidenedioxy group, and these compds. inhibited cell division at 10-9 g./ml. Oxidation of the 11β-hydroxy function to an 11-oxo or elimination of the 11-hydroxy function or introduction of a double bond in the 6,7 position or mesylation of a 21-hydroxy group reduced the cytotoxicity. Introduction of a double bond at position 1,2 sometimes increased the cytotoxicity, as did introduction of halogen at position 6.

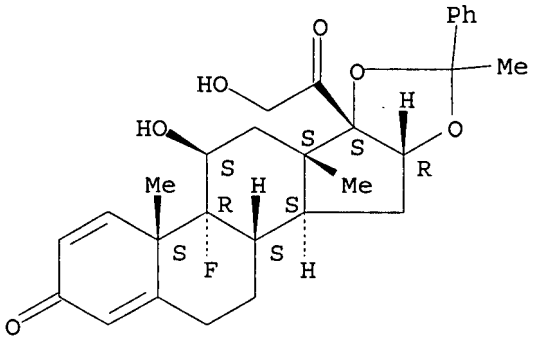
IT ***3092-82-8***
RL: PRP (Properties)
(cytotoxicity of, mol. structure and)

RN 3092-82-8 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[(1-

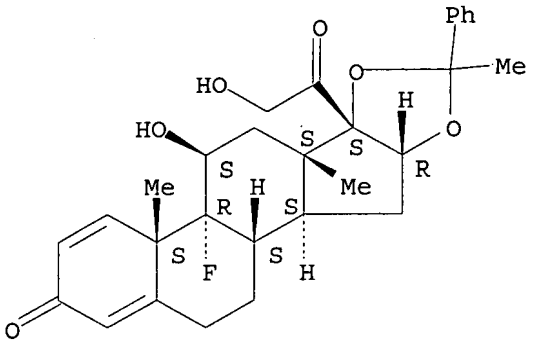
phenylethylidene)bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



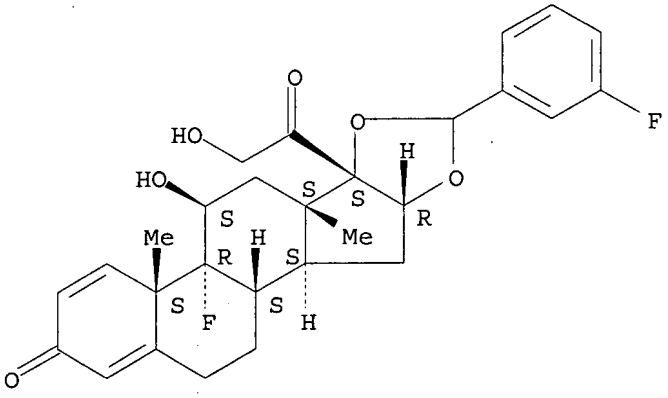
L37 ANSWER 39 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1966:103111 CAPLUS
DOCUMENT NUMBER: 64:103111
ORIGINAL REFERENCE NO.: 64:19317f-h,19318a
TITLE: Stereochemistry of unsymmetrically substituted 16α,17α-methylenedioxyprogesterones
AUTHOR(S): Fried, Josef; Sabo, Emily F.
CORPORATE SOURCE: Squibb Inst. for Med. Res., New Brunswick, NJ
SOURCE: Hormonal Steroids, Proc. Intern. Congr. Hormonal Steroids, 1st, 1964 (1965), 2, 15-21
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Condensation of 16α,17α-dihydroxyprogesterone (I) with aldehydes or unsym. ketones in the presence of an acid catalyst resulted in stable, progestationally active dioxolanes, the I being progestationally inactive. Because of the introduction of a new asym. center in the product, 2 isomers were expected. However, since only one product was formed in the reaction of I with unsym. ketones, a completely stereospecific reaction must occur in this case. Because of the different properties of the stereoisomers, a distinction was made between types (a) and (b) on the basis of the changes in rotation, activity, and m.p. (R1 = phenyl, m-FC6H4, α-naphthyl, α-thienyl, or α-furyl and R2 = H, Me, or Et). The influence of the acidity on the formation of (a) or (b) was examined Whenever R2 is H, conditions of low acidity, coupled with short reaction time, gave the inactive isomers (b), whereas the active isomers (a) were formed under more strongly acidic conditions. The opposite was found to be true when R2 was Me or Et. The stereochemistry at carbon atom 2' of the dioxolane ring was confirmed by P.M.R. spectroscopy. The mechanism of the kinetically controlled reaction leading to the formation of the thermodynamically less stable isomer was discussed, as was the relationship between stereochemistry and activity.
IT ***3092-82-8***, Pregna-1,4-diene-3,20-dione, 9-fluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone, stereoisomers
(preparation of)
RN 3092-82-8 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[(1-phenylethylidene)bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT ***886463-21-4***, Benzaldehyde, m-fluoro-, cyclic 16,17-acetal with 9-fluoro-11β,16α,17,21-tetrahydroxypregna-1,4-diene-3,20-dione (stereochemistry of)
RN 886463-21-4 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



L37 ANSWER 40 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1966:11677 CAPLUS
DOCUMENT NUMBER: 64:11677
ORIGINAL REFERENCE NO.: 64:2145d-h
TITLE: 16,17-Acetals and ketals of 6-halo-16,17-dihydroxy steroids of the pregnane series and intermediates
INVENTOR(S): Fried, Josef
PATENT ASSIGNEE(S): Pharmaceutical Research Products, Inc.
SOURCE: 8 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 3197469	19650727	US 1958-753401	19580806
PRIORITY APPLN. INFO.:		US	19580806

GI For diagram(s), see printed CA Issue.

AB To a ***suspension*** of 500 mg. 6α-fluoro-triamcinolone in 75 cc. of Me2CO was added 0.05 cc. 72% HClO4 and the mixture agitated 3 hrs. at room temperature The crystals were dissolved, the clear solution was neutralized with NaHCO3, and the Me2CO removed in vacuo. The resulting crystalline ***suspension*** was filtered off and the crystals washed with H2O. Recrystn. from 95% alc. gave 16α,17α-isopropylidene-6α,9α-difluoro-1,4-pregnadiene-11β,16α,17α,21-tetrol-3,20-dione (I, R2 = R3 = Me, X = Y1 = F, R1 = Z = OH, Y = R = X1 = H). Similarly prepared were the following analogs of I: 6α-fluorotriamcinolone; 16α,17α-isopropylidene-6α-fluorotriamcinolone 21-acetate; 16α, 17α-(2-butylidene)-6α-fluorotriamcinolone; 16α, 17α-(4-methyl-2-pentylidene), 6α-fluorotriamcinolone; 16α,17α-cyclohexylidene-6α-fluorotriamcinolone; 16α,17α-ethylidene-6α-fluorotriamcinolone; 16α,17α-isopropylidene-6α,9α-difluoro-Δ4-pregnene-11β,16α,17α,21-tetrol-3,20-dione (no double bond at 1); 16α,17α-cyclohexylidene-6α-fluoro-16α-hydroxyhydrocortisone; 16α,17α-isopropylidene-6α-fluoro-16α-hydroxyprednisolone; 6β-fluoro-9α-methylpregnane-5α,11β,17α,21-tetrol 3,20-bis-(ethylene ketal); 6α-fluoro-9α-methylhydrocortisone; 6α-fluoro-9α-methyl-16α-hydroxyhydrocortisone; 6α-fluoro-9α-methyl-16α-hydroxyprednisolone; 16α,17α-isopropylidene-6α-fluoro-9α-methyl-16α-hydroxyprednisolone; 9α-fluoro-12α-methylhydrocortisone 3, 20-bis(ethylene ketal); 16α,17α-isopro-pylidene-6α,9α-difluoro-12α-methyl-16α-hydroxyhydrocortisone; 16α,17α-isopropylidene-6α,9α-difluoro-12α-methyl-16α-hydroxyprednisolone; 16α,17α-isopropylidene-6α,9α-difluoro-1,4-pregnadiene-11β,16α,17α-triol-3,20-dione; 16α,17α-chloral derivative of 6α-fluorotriamcinolone; 16α,17α-(1,1,1-trifluoroisopropylidene)-6α-fluorotriamcinolone; acetophenone derivative of 6α-fluorotriamcinolone; p-nitroacetophenone derivative of 6α-fluorotriamcinolone; acetophenone derivative of 6α-fluorotriamcinolone; acetophenone derivative of 6α,9α-difluoro-4-pregnene-11β,21-tetrol-3,20-dione; benzaldehyde derivative of 6α-fluoro-16α-hydroxyhydrocortisone; furfural derivative of 6α-fluoro-16α-hydroxyprednisolone; 16α,17α-alloxan derivative of 6α-fluorotriamcinolone; dicyclopropyl ketone derivative of 6α-fluorotriamcinolone.

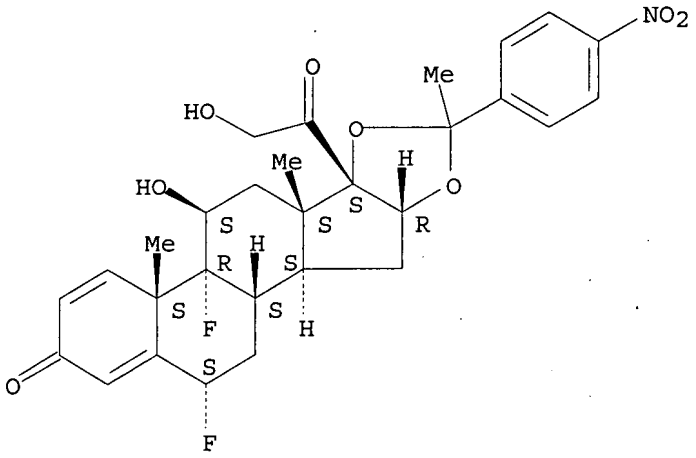
IT ***2356-31-2***, Acetophenone, 4'-nitro-, cyclic 16,17-acetal with 6α,9-difluoro-11β, 16α,17,21-tetrahydroxypregna-1,4-diene-3,20-dione ***2561-49-1***, Pregna-1,4-diene-3,20-dione, 6α,9-difluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with 4-methyl-2-pentanone ***2647-72-5***, Pregna-1,4-diene-3,20-dione, 6α,9-difluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone ***2647-78-1***, Pregn-4-ene-3,20-dione, 6α,9-difluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone ***2926-00-3***, Pregna-1,4-diene-3,20-dione, 6α,9-difluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone, 21-acetate ***3826-88-8***, Pregn-4-ene-3,20-dione, 6α-fluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with BzH

(preparation of)

RN 2356-31-2 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 6α,9-difluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with 4'-nitroacetophenone (7CI, 8CI) (CA INDEX NAME)

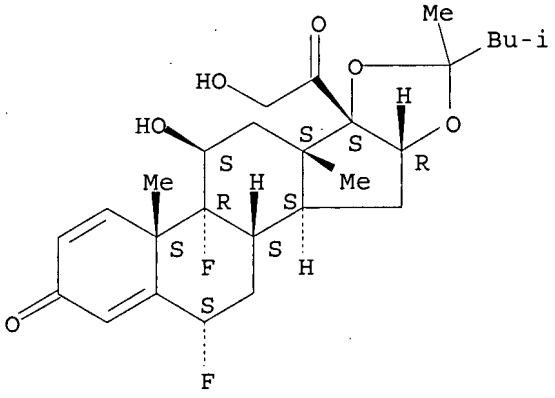
Absolute stereochemistry.



RN 2561-49-1 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 6α,9-difluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with 4-methyl-2-pentanone (7CI, 8CI) (CA INDEX NAME)

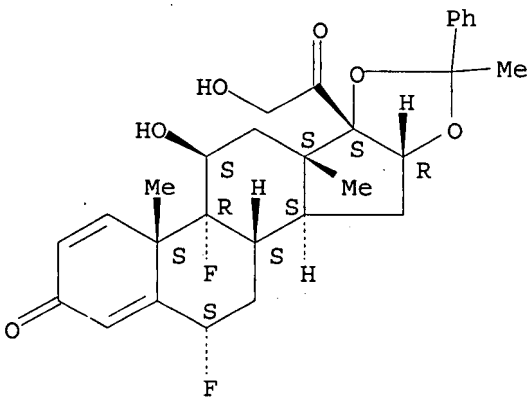
Absolute stereochemistry.



RN 2647-72-5 CAPLUS

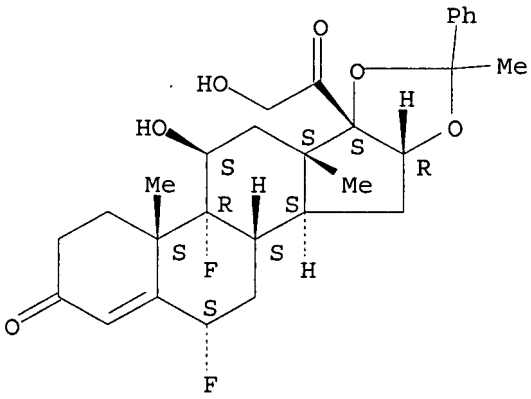
CN Pregna-1,4-diene-3,20-dione, 6α,9-difluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone (7CI, 8CI) (CA INDEX NAME)

Absolute stereochemistry.



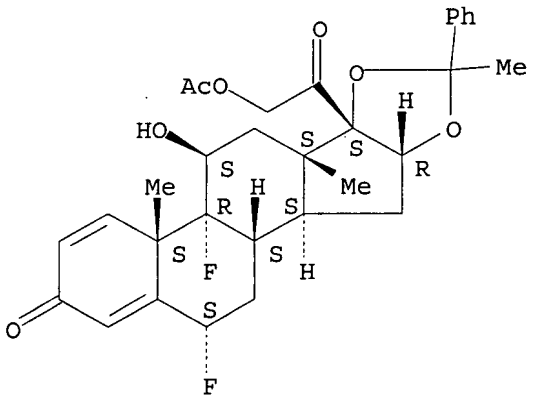
RN 2647-78-1 CAPLUS
CN Pregn-4-ene-3,20-dione, 6,9-difluoro-11,21-dihydroxy-16,17-[(1-phenylethylidene)bis(oxy)]-, (6α,11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



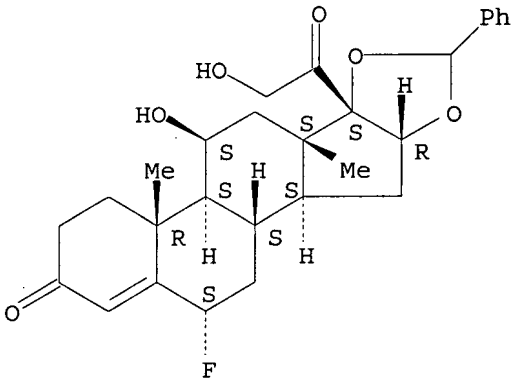
RN 2926-00-3 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 6α,9-difluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone, 21-acetate (7CI, 8CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 3826-88-8 CAPLUS
CN Pregn-4-ene-3,20-dione, 6α-fluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with benzaldehyde (7CI, 8CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 41 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1965:489175 CAPLUS
DOCUMENT NUMBER: 63:89175
ORIGINAL REFERENCE NO.: 63:16427b-h,16428a-d
TITLE: 19-Lower alkyl-10α-derivatives of cortical hormones
INVENTOR(S): Bowers, Albert
PATENT ASSIGNEE(S): Syntex Corp.
SOURCE: 14 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3177205		19650406	US 1963-262234	19630301

AB The preparation of a great number of compds. from 19-methyl- and 19-ethyl-17-hydroxy-10α-progesterones is described. The Δ4-3,20-dioxo compds. which are also oxygenated at 11, 17, and 21 and may or may not be substituted at 6, 9α, or 16 and their Δ1 and Δ1,6 derivs. are valuable cortical hormones with antiinflammatory, low catabolic, glycogenic, and thymolytic activities. They also are antiandrogenic, antigonadotrophic, and antiestrogenic hormones and have high topical activity in skin disorders, such as psoriasis and allergic dermatitis. Thus, to a cooled and stirred solution of 4 g. 19-methyl-10α-pregn-4-en-17α-ol-3,20-dione in 20 ml. tetrahydrofuran (THF) and 18 ml. MeOH was added 6 g. CaO in small portions and then 6 g. iodine. When the mixture turned pale yellow, it was poured into water containing 18 ml. HOAc and 2 g. $Na_2S_2O_3$. The precipitate was collected and refluxed 8 hrs. with 12 g. fused KOAc in Me_2CO to give 19-methyl-10α-pregn-4-ene-17α,21-diol-3,20-dione 21-acetate (I). I, on treatment with $(HOCH_2)_2$ and p-$MeC_6H_4SO_3H$ in C_6H_6, afforded 3,20- bis(ethylenedioxy)- 19- methyl- 10α- pregn- 5-ene-17α,21- diol 21-acetate, 2.5 g. of which, in 100 ml. $CHCl_3$, cooled to 0° and treated with 1.1 molar equivs. HOOCC6H4CO3H in Et_2O, then kept at room temperature for 20 hrs. gave 3,20-bis(ethylenedioxy)-19-methyl-5α,6α-oxido-10α-pregnene-17α,21-diol 21-acetate (II). II, 2 g. in 60 ml. THF was added to 40 ml. of a stirred solution of 4N MeMgBr in Et_2O and the mixture refluxed 0.5 hr. The Et_2O was allowed to boil off and the residue refluxed an addnl. 4 hrs. A saturated solution of NH_4Cl, 400 ml., was added to the cooled reaction mixture and the THF layer was separated, dried, and evaporated to dryness. The residue in 70 ml. MeOH and 7 ml. of 8% aqueous H_2SO_4 was refluxed 40 min., neutralized, concentrated in vacuo, and poured into H_2O. The precipitate in 7 ml. dry C_5H_5N, cooled to -10°, was treated with $SOCl_2$, allowed to stand 4 min., and diluted with ice-water to yield 6β,19-dimethyl-10α-pregn-4-ene-17α,21-diol-3,20-dione (III). III (1 g.) treated with 20 ml. 1% methanolic NaOH gave the 6α-methyl isomer. II (1 g.) in 35 ml. HOAc was treated with dry HCl for 5 hrs., concentrated in vacuo, at 35°, to 1/3 its volume and then poured into ice-water. The precipitate was collected and recrystd. from CH_2Cl_2 to give 6α-chloro-19-methyl-10α-pregn-4-ene-17α,21-diol-3,20-dione 21-acetate (IV). To a solution of 1 g. II in 5 ml. C_6H_6 and 5 ml. Et_2O was added 1.3 ml. HBF_4 reagent (prepared by slowly adding with stirring, 2.8 ml. BF_3 to 220 mg. of anhydrous HF cooled in dry ice-Me_2CO bath). After 3 hrs., the mixture was washed with H_2O, dried over Na_2SO_4, and the solvent was evaporated in vacuo. The residue was suspended in 40 ml. EtOAc, treated with a slow stream of dry HCl for 5 hrs., washed with H_2O, dried, evaporated, and recrystd. to give 6α-fluoro-19-methyl-10α-pregn-4-ene-17α,21-diol 21-acetate (V). A ***suspension*** of 5 g. I in 37.5 ml. dioxane was stirred with 6.2 ml. $HC(OEt)_3$ and 2.5 g. p-$MeC_6H_4SO_3H$ for 15 min. and allowed to stand for 30 min., then quenched with 4 ml. C_5H_5N and H_2O to give a precipitate of 3-ethoxy-19-methyl-10β-pregna-3,5-diene-17α,21-diol-20-one 21-acetate (VI). To a solution of 5 g. VI, 2 g. NaOAc, 100 ml. Me_2CO, and 32 ml. H_2O cooled to 0-5° was added 1.1 equivalents of N-chlorosuccinimide and 2 ml. HOAc. The mixture was stirred 30 min., diluted with H_2O, and kept overnight to give a precipitate of 6βchloro-19-methyl-10α-pregn-4-ene-17α,21-diol-3,20-dione 21-acetate (VII). VI (1 g.) in 25 ml. $HCONMe_2$, cooled to 0°, was treated with a stream of $FClO_3$ for 5 min., allowed to come to 20°, poured into H_2O, and

extracted with EtOAc. The solution was washed with saturated aqueous NaHCO3 and H2O,
dried, evaporated, and chromatographed on alumina to yield 6β-fluoro-19-methyl-10α-pregn-4-ene-17α,21-diol-3,20-dione 21-acetate (VIII). I was hydroxylated in the 11β position with adrenal gland homogenate to give 19-methyl-10α-pregnene-11β,17α,21-triol-3,20-dione 21-acetate (IX). Similarly, III, IV, V, VII, and VIII gave the corresponding 11β-hydroxy derivs. A solution of 5 g. IX in 72.5 ml. HCONMe2 was treated with 2.1 g. MeSO2Cl and 2.5 ml. C5H5N for 0.5 hr. at 80° to give 19-methyl-10α-pregna-4,9(11)-diene-17α,21-diol-3,20-dione 21-acetate which was converted to the corresponding 9α-bromo-11β-ol by treatment with MeCONHBr and 0.4N HClO4 in dioxane. The bromohydrin was then converted to 9β,11β-oxido-19-methyl-10α-pregn-4-ene-17α,21-diol-3,20-dione 21-acetate (X) with anhydrous KOAc in refluxing Me2CO. Anhydrous HF (2.11 g.) in 3.7 ml. THF cooled in a dry-ice-Me2CO bath was added, over a 20 min. period, to a cooled solution of 1.8 g. X in 30 ml. CH2Cl2 contained in a polyethylene flask. The mixture was stirred for 6 hrs. at a temperature lower than 10° and then neutralized by cautious addition of 5% aqueous NaHCO3. The 2 phases were separated and the organic layer washed with H2O, dried
over Na2SO4, and concentrated until a large precipitate formed. The mixture was cooled,
the precipitate was collected and recrystd. from EtOAc to give 9α-fluoro-19-methyl-pregn-4-ene-11β, 17α,21-triol-3,20-dione 21-acetate. X treated with anhydrous HCl in CHCl3 afforded the corresponding 9α-chloro compound Oxidation of IX with 8N chromic acid afforded 19-methyl-10α-pregn-4-ene-17α,21-diol-3,11,20-trione 21-acetate. IX (1 g.), 2 g. chloranil, and 50 ml. tert-BuOH were refluxed 8 hrs. to give 19-methyl-10α-pregna4,6-diene-11beta;,17a,21-triol-3,20-dione 21-acetate. A mixture of 500 mg. IX, 10 ml. dioxane, and 350 mg. of 2,3-dichloro-5,6-dicyano-1,4-benzoquinone was refluxed 10 hrs. to give 19-methyl-10α-pregna-1,4-diene-11β, 17α,21-triol-3,20-dione 21-acetate. The mixture of 500 mg. IX, 10 ml. dioxane, and 350 mg. of 2,3-dichloro-5,6-dicyano-1,4-benzoquinone was refluxed 10 hrs. to give 19-methyl-10α-pregna-1,4-diene-11β,17α-21-trid-3,20-dione 21-acetate. The Δ4,6 compound treated similarly gave a pregna-1,4,6-triene. IX (2 g.), 50 ml. MeOH, and 5 ml. 4% aqueous KOH stirred for 1 hr. under N atmospheric, neutralized with HOAc,
concentrated in vacuo, diluted with H2O and the solid recrystd. from EtOAc-MeOH gave 19-methyl-10α-pregn-4-ene-11β,17α,21-triol-3,20-dione. The preceding series of reactions were applied to 19-methyl-16α,17α- isopropylidenedioxy-10α-pregn-4-ene-3,20-dione, 16α,19-dimethyl-10α-pregn-4-en-17α-ol-3,20-dione, 16β,19-dimethyl-10α-pregn-4-en-17α-ol-3,20-dione, 19-ethyl-16α, 17α-isopropylidenedioxy-10α-pregn-4-ene-3,20-dione, 19-ethyl-10α-pregn-4-en-17α-ol-3,20-dione, 16α-methyl-19-ethyl-10α-pregn-4-en-17α-ol-3,20-dione, and 16β-methyl-19-ethyl-10α-pregn-4-en-17α-ol-3,20-dione affording the corresponding derivs. Compds. having a free 21 alcohol were converted to acetate, propionate, and caproate esters. 19-Methyl-16α,17α-isopropylidenedioxy-10α-pregn-4-ene-11β,21-diol 3,20-dione 21-acetate (1 g.) treated with 20 ml. 60% HCOOH for 1 hr. afforded 19-methyl-10α-pregn-4-ene-11β,16α,17α,21- tetrol-3,20-dione 21-acetate (XI). Alkaline hydrolysis of XI gave the free 21 alcohol which was treated with Ac2O in C5H5N to give the 16,21-diacetate. XI treated with MeCHO or MeCOPh with traces of HClO4 gave the 16α,17α-ethylidenedioxy

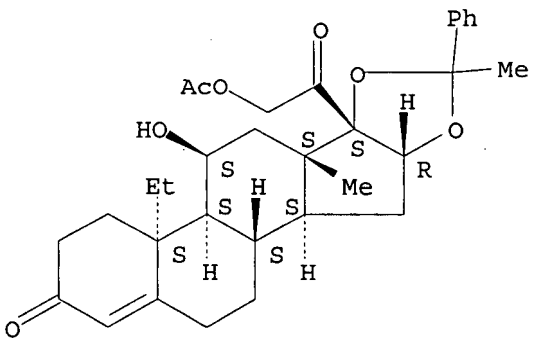
derivative and 16,17-acetophenonide of XI, respectively. The corresponding 9α and 6α derivs. of XI were also prepared 6β-Chloro-19-methyl-10α-pregn-4-ene-11β,17α,21-triol-3,20-dione 21-acetate in HOAc was isomerized to the 6α-chloro compound with dry HCl.

IT ***4102-32-3***, 19-Nor-10α-pregn-4-ene-3,20-dione, 10-ethyl-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone, 21-acetate
(preparation of)

RN 4102-32-3 CAPLUS

CN 19-Nor-10α-pregn-4-ene-3,20-dione, 10-ethyl-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone, 21-acetate (7CI, 8CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 42 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1964:17142 CAPLUS

DOCUMENT NUMBER: 60:17142

ORIGINAL REFERENCE NO.: 60:3070d-h,3071a-c

TITLE: Fluorinated steroids

PATENT ASSIGNEE(S): American Cyanamid Co.

SOURCE: 13 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 933867		19630814	GB 1959-41663	19591208
PRIORITY APPLN. INFO.:			US	19581208

GI For diagram(s), see printed CA Issue.

AB The preparation of fluoropregnanes and fluoroandrostanes was described. These products had anti-inflammatory activity. Incubation of 6α,9α-difluorohydrocortisone with Streptomyces roseochromogenes and the product chromatographed on diatomaceous earth gave 6α,9α-difluoro-16α-hydroxyhydrocortisone (I). I (200 mg.) in Me2CO left 1 h. with 0.2 mL. 70% HClO4 gave the 16α,17α-acetonide of I. I (25 mg.) similarly afforded the 16α,17α-[1-(cyclohexyl)ethylidene] derivative I (50 mg.) slurried with 6 mL. HC(OEt)3 and 70% HClO4 gave 16α,17α-(ethoxymethylenedioxy)-6α,9α-difluoro-4-pregnene-11,21-diol-

3,20-dione (Ia). The following derivs. of I were similarly obtained (ketone or aldehyde, and product given): PhAc, 16α, 17α-[(1-phenyl)ethylidenedioxy]; BzH, 16α,17α-benzylidenedioxy; furfural, 16α,17α-furfurylidenedioxy; cyclopentanone, 16α,17α-cyclopentylidenedioxy; cyclohexanone, 16α,17α-cyclohexylidenedioxy; iso-BuAc, 16α, 17α-[(1,3-dimethyl)butylidenedioxy]; and EtCHO, 16α,17α-propylidenedioxy. 6α-Fluoroprednisolone incubated with S. roseochromogenes gave 25 mg. 6α-fluoro-16α-hydroxyprednisolone (II), m. 226-30°. II treated with various aldehydes and ketones as for I gave the following products (ketone or aldehyde, and substituent given): Me2CO, 16α,17α-isopropylidene; EtCHO, 16α,17α-propylidene; MeCOEt, 16α,17α-isobutylidene; Et2CO, 16α,17α-[(1-ethyl)propylidene]; iso-BuAc, 16α,17α-[(1,3-dimethyl)butylidene]; cyclopentanone, 16α,17α-cyclopentylidene; cyclohexanone, 16α,17α-cyclohexylidene; BzH, 16α,17α-benzylidene; PhAc, 16α,17α-[(1-phenyl)ethylidene]; furfural, 16α,17α-furfurylidene; Me cyclohexyl ketone, 16α,17α-[(1-cyclohexyl)ethylidene]; Et orthoformate, 16α,17α-[(ethoxy)methylene]. II was also prepared by treatment with HCl and Me2CO. II 21-acetate similarly afforded the 16α,17α-isopropylidene derivative 6α-Fluoro-16β,17α,21-trihydroxy-1,4-pregnadien-3,11,20-trione (IIa) afforded the acetonide, as did 6α-fluoro-16α,17α,21-trihydroxy-4-pregnene-3,11,20-trione and 6α,21-difluoro-11β,16α, 17α-trihydroxy-1,4-pregnadiene-3,20-dione. 6α,9α-Difluoro-11β-hydroxy-16α,17α-isopropylidenedioxy-21-(tetrahydropyran-2-yloxy)progesterone (IIb) (0.42 g.) in 100 cc. MeOH treated 1 h. at room temperature with 5 cc. 3% H2SO4 gave 0.24 g. of a white solid, which upon acetylation afforded 21-acetoxy-6α,9α-difluoro-11β-hydroxy-16α, 17α-isopropylidenedioxyprogesterone. I acetonide was readily acetylated to give the 21-acetate (III). III (20 mg.) oxidized with CrO3 overnight at room temperature gave 6α,9α-difluoro-16α-hydroxycortisone 21-acetate (IV). IV incubated with Nocardia corallina gave 6α,9α-difluoro-16α-hydroxyprednisolone (V). V (20 mg.) treated 1 h. with Me2CO and 70% HClO4 gave the acetonide. 6α,9α-Difluoro-11β,21-dihydroxy-16α,17α-isopropylidenedioxyprogesterone (0.2 g.) in tert-BuOH refluxed 65 h. with 0.25 g. SeO2 and the product chromatographed on silica gel gave 6α,9α-difluoro-11β,21 - dihydroxy - 16α,17α - isopropylidenedioxypregnadiene-3,20-dione. 6α,9α-Difluoro-11β-hydroxy - 16α,17α - isopropylidenedioxyprogesterone (0.48 g.) in 18 cc. 60% HCO2H heated 45 min. gave 0.2 g. 6α,9α-difluoro-11β,16α,17α-trihydroxyprogesterone (VI). VI could be converted into starting material. IIb (0.46 g.) treated with CrO3 in C5H5N and the product left 2 h. with 30 cc. 80% aqueous MeOH and 1 cc. 8% H2SO4 gave 0.045 g. 6α,9α-difluoro-21-hydroxy-16α,17α-isopropylidenedioxy-11-oxoprogesterone. 11β,21-Dihydroxy-9α-fluoro-16α,17α-isopropylidenedioxyprogesterone (0.5 g.) in 20 cc. dihydropyran treated at 0° with 1 cc. concentrated HCl and kept 1 h. at room temperature gave 0.4 g. 9α-fluoro-11β-hydroxy-16α,17α-isopropylidenedioxy-21-(tetrahydropyran-2-yloxy)progesterone, m. 200-5°. 2,9α-Difluoro-11β-hydroxy-16α, 17α-isopropylidenedioxy-21-(tetrahydropyran-2-yloxy)progesterone (0.3 g.) in 90 cc. MeOH and 15 cc. H2O stirred 1 h. at room temperature with 1.5 cc. 8% H2SO4 gave 0.19 g. 2,9α-difluoro-11β,21-dihydroxy-16α,17α-isopropylidenedioxyprogesterone,

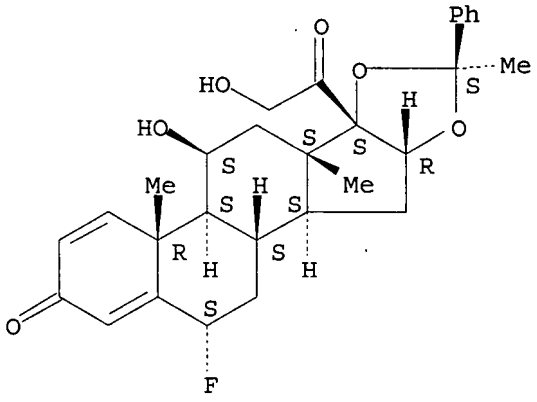
white solid.

IT ***569650-85-7***, Pregna-1,4-diene-3,20-dione, 6α-fluoro-11β,21-dihydroxy-16α,17-[(α-methylbenzylidene)dioxy]- (cyclic acetals with steroids)

RN 569650-85-7 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 6α-fluoro-11β,21-dihydroxy-16α,17-[(α-methylbenzylidene)dioxy]- (7CI) (CA INDEX NAME)

Absolute stereochemistry.

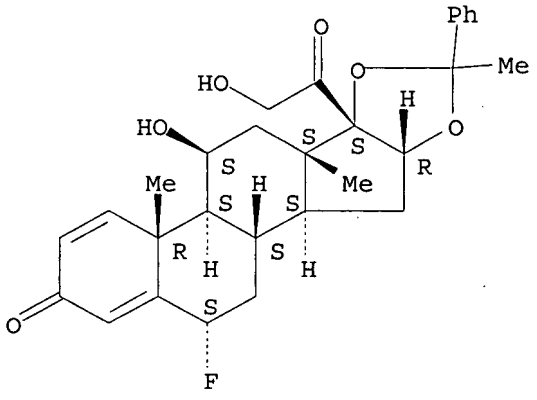


IT ***1841-23-2***, Pregna-1,4-diene-3,20-dione, 6α-fluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone ***2093-91-6***, Pregna-1,4-diene-3,20-dione, 6α-fluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with cyclohexyl Me ketone ***2341-08-4***, Pregna-1,4-diene-3,20-dione, 6α-fluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with benzaldehyde ***2556-91-4***, Pregna-1,4-diene-3,20-dione, 6α-fluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with 4-methyl-2-pentanone (preparation of)

RN 1841-23-2 CAPLUS

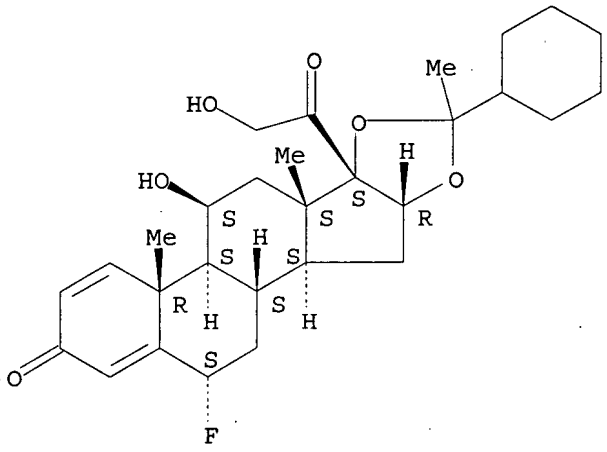
CN Pregna-1,4-diene-3,20-dione, 6α-fluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone (7CI, 8CI) (CA INDEX NAME)

Absolute stereochemistry.



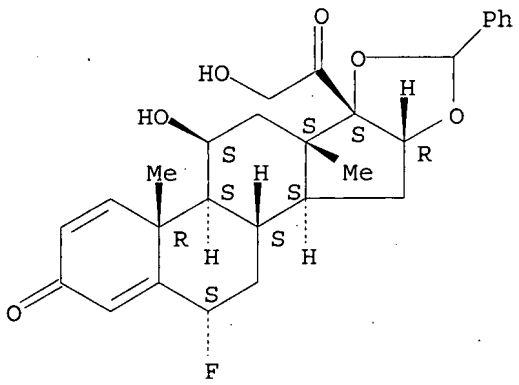
RN 2093-91-6 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 6α-fluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with cyclohexyl methyl ketone (7CI, 8CI) (CA INDEX NAME)

Absolute stereochemistry.



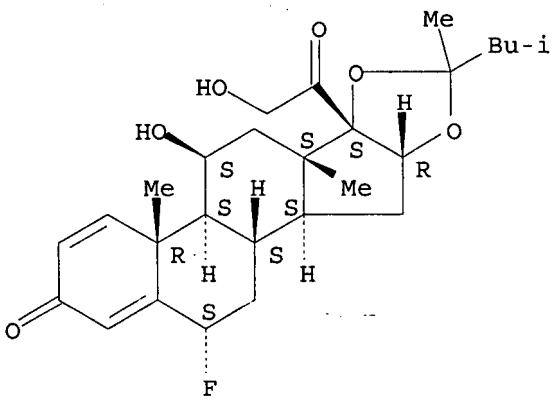
RN 2341-08-4 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 6α-fluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with benzaldehyde (7CI, 8CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 2556-91-4 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 6α-fluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with 4-methyl-2-pentanone (7CI, 8CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 43 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1963:415900 CAPLUS
DOCUMENT NUMBER: 59:15900
ORIGINAL REFERENCE NO.: 59:2911d-h,2912a
TITLE: C-Ring substituted 6α-halosteroids
INVENTOR(S): Diassi, Patrick A.; Principe, Pacifico A.
PATENT ASSIGNEE(S): Olin Mathieson Chemical Corp.
SOURCE: 7 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3079384		19630226	US 1960-61388	19601010
FR M1771			FR	
GB 997380			GB	

OTHER SOURCE(S): MARPAT 59:15900
GI For diagram(s), see printed CA Issue.
AB The title products exhibited antiinflammatory activity. 6α-Fluoro-16α-hydroxycortexolone 16,17-acetonide (I) in HCONMe2 incubated 4 days with a broth containing Trichotheciumroseum gave 6α-fluoro-16α-hydroxyepihydrocortisone 16,17-acetonide (II), m. 264-6°, [α]22D 102° (CHCl3). 6α-Chloro-16α-hydroxycortexolone 16,17-acetophenonide similarly gave 16,17-acetophenonide of 6α-chloro-16α-hydroxyepihydrocortisone. I in HCONMe2 incubated 7 days with Colletotrichium phomoides gave II. Similarly, 16α,17α-cyclohexylidene derivative of 6α-fluoro-16α-hydroxyepicortexolone gave 16,17-cyclohexylidene derivative of 6α-fluoro-16α-hydroxyepihydrocortisone. II was similarly converted to 6α-fluoro-16α-hydroxyepiprednisolone 16,17-acetonide (III). II (100 mg.) upon acetylation at room temperature gave the 21-acetate (IV), m. 293-5°, [α]D 88° (CHCl3). III 21-acetate was similarly prepared II 21-propionate (V) was obtained using propionic anhydride. IV (50 mg.) in 1 ml. CHCl3 and 1 ml. C5H5N treated 16 hrs. at 0° with 0.1 ml. MeSO2Cl gave 6αfluoro-16α-hydroxyepihydrocortisone 11-mesylate 16,17-acetonide 21-acetate. Similarly, IV with tosyl chloride gave the corresponding 11-tosylate (Va). 6α-Chloro-16α-hydroxyepihydrocortisone 21-acetate 16,17-acetophenonide (VI) similarly afforded the 11-mesylate (VIa). IV

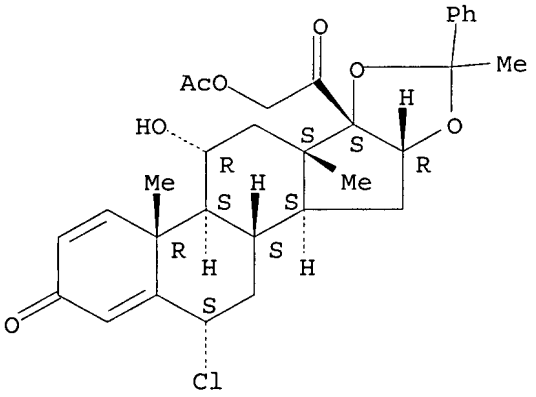
(100 mg.) in 2 ml. dioxane refluxed 6 hrs. with 52 mg. 2,3-dichloro-5,6-dicyanobenzoquinone gave 6α-fluoro-16α-hydroxyepiprednisolone 16,17-acetonide 21-acetate (VII). V treated as IV gave 6α-fluoro-16α-hydroxyepiprednisolone 16,17-acetonide 21-propionate. Also, VI gave 16,17-acetophenonide derivative of 6α-chloro-16α-hydroxyepiprednisolone 21-acetate. VII (50 mg.) suspended in 1 ml. CHCl3 and 1 ml. C5H5N treated 16 hrs. at 0° with 0.1 ml. MeSO2Cl gave the 11-mesylate. Following the last procedure, VII, Va, and VIa gave 6α-chloro-16α-hydroxyepiprednisolone 16,17-acetonide 11-mesylate 21-acetate, 6α-fluoro 16α-hydroxyepiprednisolone 11-tosylate 16,17-acetonide 21-acetate, and 6α-chloro-16αhydroxyepiprednisolone 11-mesylate 21-acetate 16,17-acetophenonide, resp. IV (128 mg.) in 3.5 ml. HCO2H warmed 22 hrs. at 42° gave 6α-fluoro-16α-hydroxyepihydrocortisone (VIII). VIII (119 mg.) stirred 2 hrs. at room temperature with 3.6 ml. furfural containing 0.04 ml. 70% HClO4 gave the furfural derivative IV (100 mg.) in 3 ml. Me2CO left 10 min. with 1 ml. solution containing 20 mg. CrO3 and 32 mg. H2SO4 in H2O gave 93.1 mg. 6α-fluoro-16α-hydroxycortisone 16,17-acetonide 21-acetate (IX), m. 262-4°. IX treated with T. roseum gave 6α-fluoro-16α-hydroxyprednisone 16,17-acetonide 21-acetate.

IT ***105044-99-3***, Pregna-1,4-diene-3,20-dione, 6α-chloro-11α,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone, 21-acetate
(preparation of)

RN 105044-99-3 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 6α-chloro-11α,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone, 21-acetate (7CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 44 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1963:409217 CAPLUS

DOCUMENT NUMBER: 59:9217

ORIGINAL REFERENCE NO.: 59:1716a-h

TITLE: Derivatives of 16α,17α-dihydroxy steroids

PATENT ASSIGNEE(S): Olin Mathieson Chemical Corp.

SOURCE: 10 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 916996		19630130	GB 1959-25056	19590721
FR 1347658			FR	
PRIORITY APPLN. INFO.:			US	19580806

AB 16α,17α-Acetal and ketal derivs. of 16α, 17α-dihydroxy steroids are prepared by reaction of the steroid with an aldehyde or ketone in the presence of an acid catalyst. A mixture of 500 mg. 6α-fluorotriamcinolone (I) in 75 ml. Me2CO and 0.05 ml. 72% HClO4 was agitated at room temperature 3 hrs., neutralized with dilute NaHCO3, the whole concentrated, filtered, and recrystd. (Method A) to give the 16α, 17α-isopropylidene derivative (II) of I. Substitution of 0.05 ml. concentrated HCl 6 hrs. or 0.25 g. p-MeC6H4SO3H 21 hrs. also yielded II. Acetylation of II (pyridine-Ac2O, room temperature, 18 hrs.) gave II 21-acetate.
Similarly prepared with the appropriate ketone or aldehyde, HClO4 as catalyst (unless otherwise indicated), and with I, 6α,9α-difluoropregna-1,4-diene-16α,17α,21-trihydroxy-3, 11, 20-trione (III), 6α,9α-difluoropregn-4-ene-11β,16α,17α, 21-tetrahydroxy-3,20-dione (IV), 6α,9α-difluoropregn-4-ene-16α,17α,21-trihydroxy-3,11,20-trione (V), 6α-fluoro-16α-hydroxyhydrocortisone (VI), 6α-fluoro-16α-hydroxycortisone (VII), 6α-fluoro-16α-hydroxyprednisolone (VIII), 6α-fluoro-9α-methyl-16α-hydroxyprednisolone (IX) [prepared from 9α-methylhydrocortisone 3,20-bisethylene ketal via 5α,6αepoxide (BzOOH), 6β-fluoro-5α-hydroxide (BF3-etherate), 6α-fluoride (HOAc, concentrated HCl), 16α-hydroxide (Streptomyces roseochromogenes Waksman 3689) to IX (Nocardia aurantia)], 6α,9α-difluoro-12α-methyl-16α-hydroxyhydrocortisone (X) (prepared from 9α-fluoro-12α-methylhydrocortisone 3,20-bisethylene ketal as in preparation of IX, omitting final dehydrogenation), or 6α,9α-difluoro-12α-methyl-16α-hydroxyprednisolone (XI) (N. aurantia on X) were: 16α,17α-isopropylidene derivs. of III (XII), IV and V (p-MeC6H4SO3H-H2O, 18 hrs.), VIII, IX, X, and XI, also XII 21-acetate; 16α,17α-(2-butylidene) derivs. of I and III (MeCOEt, 2 hrs.); 16α,17α-(41-methyl-21-pentylidene) derivs. of I and III (Me iso-Bu ketone, 6 hrs.); 16α,17α-cyclohexylidene derivs. of I and III (2 hrs.), VI and VII (6 hrs.) (cyclohexanone); 16α,17α-(31-pentylidene) derivs. of I and III (di-Et ketone, 4 hrs.); 16α,17α-ethylidene derivs. of I and III (paraldehyde, 3.5 hrs.). 16α, 17α-Isopropylidene-6α,9α-difluoropregna-1,4-diene-11β, 16α,17α-trihydroxy-3,20-dione was prepared from 1.5 g. II in 15 ml. anhydrous pyridine with 1.5 ml. MeSO2Cl added at 0°, the mixture kept 2.5 hrs. in the refrigerator, diluted with ice H2O, filtered, washed, dried, and 500 ml. of the resulting II 21-mesylate refluxed with 1.5 g. NaI in 50 ml. HOAc 4 hrs. Similarly, 16α,17α-isopropylidene derivative of IV gave 16α,17α-isopropylidene-6α,9α-difluoropregn-4-ene-11β, 16α, 17α-trihydroxy-3,20-dione. Method A with HClO4 and the noted substitutes for 75 ml. acetone on 500 mg. I and (or) III gave the following 6α,17α derivs.: 1,1,1-trifluoroisopropylidene derivative

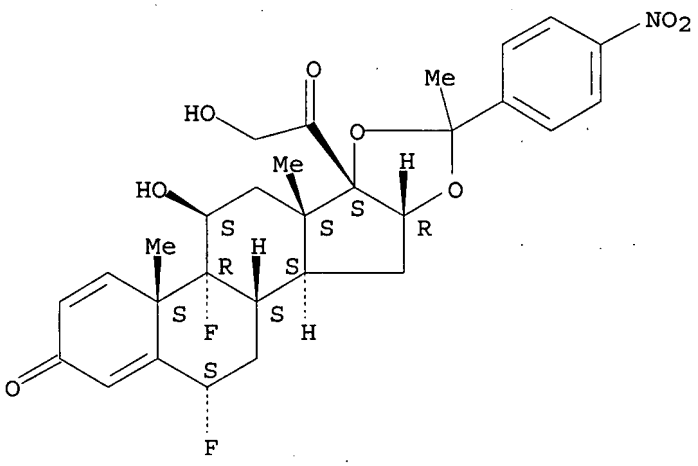
of I (10 ml. dioxane, 10 ml. 1,1,1-trifluoroacetone); dicyclopropyl ketone I (10 ml. dioxane, 10 ml. dicyclopropyl ketone); alloxane I (2.5 g. alloxane, 20 ml. dioxane, 24 hrs.); acetophenone I and III (XIII and XIV, resp.) [12.5 ml. freshly redistd. AcPh, 2 hrs., neutralized with 1 ml. 1.1N NaOH then aqueous NaHCO3 (Method B)]; p-nitroacetophenone derivative of I and III (17.5 ml. dioxane, 10 g. p-AcC6H4NO2, 3.5 hrs.); chloral I (4 g. chloral hydrate, 20 ml. dioxane, no HClO4, 24 hrs.). Acetylation gave 21-acetates of XIII and XIV. Also prepared were: 16α,17α-acetophenone derivs. of IV and V (200 mg. steroid in 30 ml. AcCOPh, 100 mg. p-MeC6H4SO3HH2O, 18 hrs.). Method B gave the 16α,17α-benzaldehyde derivs. of VI and VII (100 mg. steroid, 15 ml. PhCHO) and the 16α,17α-furfural derivative of VIII (furfural). An alternate route is described starting with the acetonide and introducing the 6α-halo function. 9α-Fluoro-16α-hydroxyhydrocortisone 16α,17α-acetonide (XV) was ketallized to XV 3-ethylene ketal (XVI), m. 248-50° (Me2CO), [α]23D 1.5° (c 0.51, CHCl3), λ 2.93, 5 86 μ. Epoxidn. of 1 g. XVI in 20 ml. CHCl3 with 0.4 g. BzOOH in 10 ml. CHCl3 18 hrs. at 4° gave 5α,6α-epoxide of XVI (XVII). Treatment of 500 mg. XVII in 50 ml. ice-cold CHCl3, 7 ml. 0.5N HCl in CHCl3 at 0° 2 hrs. gave 6β-chloro-5α-hydroxide of XVII (XVIII). Treatment of 500 mg. XVIII in 25 ml. HOAc with 3 ml. concentrated HCl at room temperature 18 hrs. gave 6α-chloride of XVIII (XIX). XIX was dehydrogenated in a concentration of 200 γ/ml. with N. aurantia to give 6α-chloro-9α-fluoro-16α-hydroxyprednisolone 16α,17α-acetonide. Similarly, opening the 5α,6α-epoxide of XVII with aqueous HCl gave 6β-chloro-9α-fluoropregnane-5α,11β,16α,17.alpha.,21-pentahydroxy-3,20-dione acetonide; 6β,9α-difluoropregnane-5α,11β,16α,17α,21-pentahydroxy-3,20-dione 16α,17α-acetonide (XX), or XX 3-ethylene ketal (with BF3-Et2O). Use of dry or aqueous HBr or HI gave the 6β-bromo-5α-hydroxides or 6β-iodo 5α hydroxides. All 6β halo derivs. can be converted to the 6α compds. and if desired dehydrogenated to 1,4 dienes as above.

IT ***2356-31-2***, Acetophenone, 4'-nitro-, cyclic 16,17-acetal with 6α,9-difluoro-11β, 16α,17,21-tetrahydroxypregna-1,4-diene-3,20-dione ***2561-49-1***, Pregna-1,4-diene-3,20-dione, 6α,9-difluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with 4-methyl-2-pentanone ***2647-72-5***, Pregna-1,4-diene-3,20-dione, 6α,9-difluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone ***2926-00-3***, Pregna-1,4-diene-3,20-dione, 6α,9-difluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone, 21-acetate (preparation of)

RN 2356-31-2 CAPLUS

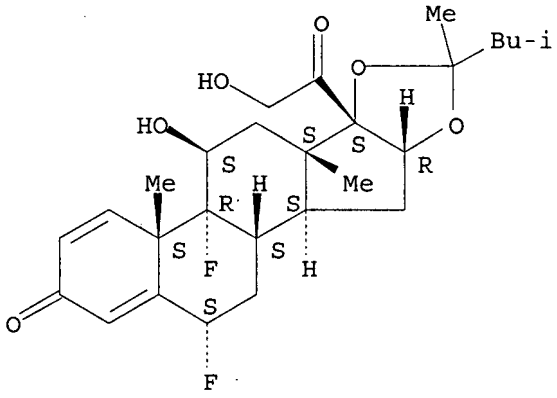
CN Pregna-1,4-diene-3,20-dione, 6α,9-difluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with 4'-nitroacetophenone (7CI, 8CI) (CA INDEX NAME)

Absolute stereochemistry.



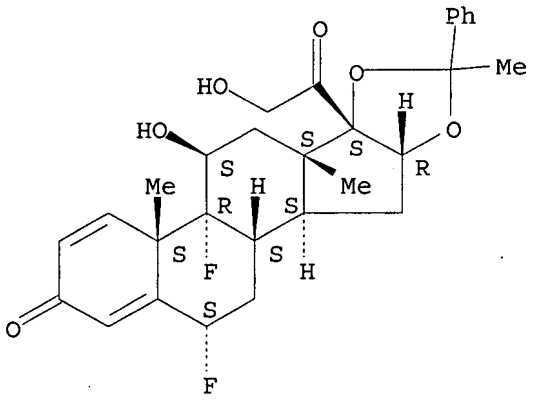
RN 2561-49-1 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 6α,9-difluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with 4-methyl-2-pentanone (7CI, 8CI) (CA INDEX NAME)

Absolute stereochemistry.



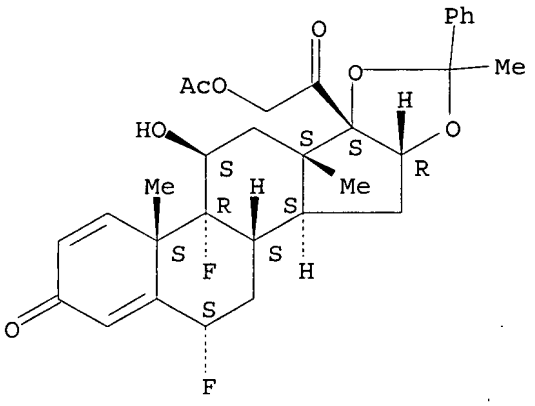
RN 2647-72-5 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 6α,9-difluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone (7CI, 8CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 2926-00-3 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 6α,9-difluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone, 21-acetate (7CI, 8CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 45 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1963:59991 CAPLUS
DOCUMENT NUMBER: 58:59991
ORIGINAL REFERENCE NO.: 58:10281b-f
TITLE: Cyclic acetals and ketals of the 4-pregnene series
INVENTOR(S): Ringold, Howard J.; Zderic, John A.; Djerassi, Carl; Bowers, Albert
PATENT ASSIGNEE(S): Syntex S.A.
SOURCE: 3 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1131213		19620614	DE 1959-S63348	19590606
GB 920503			GB	

US 3126375 19640324 US 00000000
PRIORITY APPLN. INFO.: MX 19580613

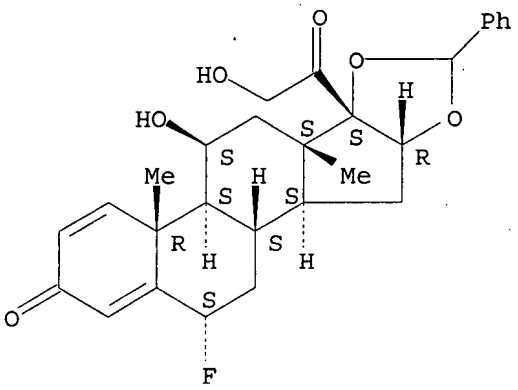
AB The title compds. had antiphlogistic, glucocorticoid, thymolytic, antiestrogenic, and antiandrogenic activity. 6α-Fluoro-4-pregnene-11β,16α,17α,21-tetrol-3,-20-dione (I) (3 g.), 200 ml. anhydrous dioxane, 10 g. (CH2O)n, and 24 g. anhydrous CuSO4 stirred 24 hrs. at room temperature, filtered, the solution evaporated in vacuo, the residue diluted with H2O, the precipitate filtered off, dissolved in CH2Cl2, the solution washed (H2O), dried (Na2SO4), and evaporated to dryness gave 6α-fluoro-16α,17α-methylenedioxy-4-pregnene-11β,21-diol-3,20-dione (II), m. 265-8°, λ 236 mμ (log ε 4.18). 21-Acetate of I gave similarly 21-acetate (III) of II, m. 241-4°, λ 236-8 mμ (log ε 4.15). III (1 g.) in 10 ml. anhydrous MeOH treated at 0° with MeONa (prepared from 60 mg. Na and 10 ml. MeOH), the mixture stirred 1 hr. in N atmospheric at 0°, poured into 100 ml. saturated NaCl (containing 0.3 ml. AcOH), extracted with CH2Cl2, the extract washed (H2O), dried (Na2SO4), and evaporated gave II. Similarly were prepared: 6α-fluoro-16α,17α-ethylidenedioxy-4-pregnene-11β,21-diol-3,20-dione, m. 229-31°, λ 235 mμ (log ε 4.18); 6α-chloro-9α-fluoro-16α,17α-isopropylidenedioxy-1,4-pregnadien-21-ol-3,11,20-trione, m. 215-18°, λ 238 mμ (log ε 4.23). 6α,9α-Dichloro-4-pregnene-16α,17α,21-triol-3,11,20-trione (1 g.) in 100 ml. Me2CO treated at 0° with 15 ml. saturated solution of HCl in anhydrous Me2CO, the mixture stirred 10 min. at 0°, treated slowly with 4.5 g. K2CO3 in 100 ml. H2O, and further with 500 ml. saturated NaCl, the mixture kept overnight at 5°, the precipitate separated, washed with saturated NaCl and H2O, dried, and recrystd. from aqueous MeOH (containing a small quantity of C5H5N) gave 6α,9α-dichloro-16α,17α-isopropylidenedioxy-4-pregnen-21-ol-3,11,20-trione, m. 229-34°, λ 236 mμ (log ε 4.14). 6α,9α-Difluoro-4-pregnene-11β,16α,17α,21-tetrol-3,20-dione (3 g.) and 20 ml. AcPh treated slowly at 0° with 0.5 ml. 72% HClO4, the mixture stirred 1 hr. at 0°, diluted with H2O, the organic layer separated, washed with H2O, dried (Na2SO4), evaporated in vacuo, and the residue chromatographed on 60 g. neutral Al2O3 gave 6α,9α-difluoro-16α, 17α-(1-phenylethylidenedioxy)-4-pregnene-11β,21-diol-3,20-dione, m. 271-4°, λ 236 mμ (log ε 4.18). Similarly were prepared: 6α-fluoro-16α,17α-isopropylidenedioxy-4-pregnene-11β,21-diol-3,20-dione, m. 247-55° (Me2CO-C6H14), [α]D 140-50° (CHCl3), λ 236 mμ (log ε 4.17); 6α-fluoro-16α,17α-benzylidenedioxy-1,4-pregnadiene-11β,21-diol-3,20-dione, m. 278-82°, λ 234 mμ (log ε 4.18); 6α-fluoro-16α,17α-cyclohexylidenedioxy-4-pregnene-11β,21-diol-3,20-dione, λ 236 mμ (log ε 4.17); 6α-chloro-16α,17α-(1-methylpropylidenedioxy)-1,4-pregnadien-21-ol-3,11,20-trione 21-acetate, m. 234-8°, λ 234 mμ (log ε 4.19).

IT ***2341-08-4***, Pregna-1,4-diene-3,20-dione, 16α,17-(benzylidenedioxy)-6α-fluoro-11β,21-dihydroxy-
(preparation of)

RN 2341-08-4 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 6α-fluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with benzaldehyde (7CI, 8CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 46 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1963:27512 CAPLUS
DOCUMENT NUMBER: 58:27512
ORIGINAL REFERENCE NO.: 58:4627b-h
TITLE: 16,17-Acetals and -ketals of 6α,12α-dihalo-16α,17α-dihydroxy-pregnanes
INVENTOR(S): Fried, Josef
PATENT ASSIGNEE(S): Olin Mathieson Chemical Corp.
SOURCE: 9 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3053837		19620911	US 1958-764495	19581001

AB A 12α-halo-11-oxo(or βhydroxy)-4-pregnen-17α-ol (or 17α,21-diol)-3,20-dione, optionally 2α-methylated, was transformed into its 3,20-bisketal and then oxidized with peracid to the 5α,6α-epoxide. Subsequent treatment with hydrogen halide or BF3 etherate in a solvent under mild conditions left the ketal groups intact, with formation of the 5α-hydroxy-6β-halohydrin, requiring hydrolysis of the ketal, dehydration, and inversion of the 6β- halogen, e.g. through treatment with HCl in AcOH, whereas hydrogen halide in aqueous solution directly formed the 6α-halo-Δ4-3-ketone. The latter, optionally after 1,2-dehydrogenation with Corynebacterium simplex or Nocardia aurantia, was incubated with Streptomyces roseochromogenus to yield the corresponding 16α-hydroxylated compound, which was stirred with an aldehyde or ketone in ***suspension*** or solution and in the presence of an acid catalyst such as HClO4 to furnish the title compds. (Borman, et al., CA 52, 13768f). Alternatively, a described starting compound was first 16α-hydroxylated and then the 16,17-acetal or -ketal formed, to proceed as above. The following compds. were prepared: 3,20-bis(ethylenedioxy) derivs. of 12α-chloro-5-pregnene-17α,21-

diol-11-one, 12α-chloro-5α,6α-oxidopregnane-17α,-21-diol-11-one, and 6β-fluoro-12α-chloropregnane-5α,17α,21triol-11-one; 6α-fluoro-12α-chlorocortisone; 6α-fluoro-12αchloro-16α-hydroxycortisone (I) and its acetonide; the same compound as above but with F in 6 or with F in 6 and 12; 21-acetate of I acetonide; the 2'-butylidene, 4'-methyl-2'-pentylidene, cyclohexylidene, 3'-pentylidene, and ethylidene derivs. of I; 6α-fluoro-12α-chloro-16α-hydroxyprednisone (by dehydrogenation of I) and its acetonide; the acetonides of 6α-fluoro-12αchloro-11β,16α,17α-trihydroxyprogesterone and of 6α,12α-difluoro-16α-17α-dihydroxy-11-oxoprogesterone; the 3,20-bis(ethylenedioxy) derivs. of 12α-fluoro-5-pregnene-11β,17α,21triol, and of 6β,12α-difiuoropregnane-5α,11α,17α,21-tetrol; 6α,12α-difluorohydrocortisone, 6α,12α-difluoro-16α-hydroxyhydrocortisone, 6α,12α-difluoro-16α-hydroxyprednisolone and its acetonide; 2α-methyl-3,20-bis(ethylenedioxy) derivs. of 12α-fluoro5-pregnene-11β,17α,21-triol, of 12α-fiuoro-5α,6α-oxidopregnane11β,17α,21-triol, and of 6β,12α-difluoropregnane-5α,11β,17α,21-tetrol; 2α-methyl-6α,12α-difluorohydrocortisone, 2α-methyl-6α,12α-difluoro-16α-hydroxyhydrocortisone and its acetonide; the 3,20-bis(ethylenedioxy) derivs. of 12α-fluoro-5-pregnen-17α-ol-11-one, of 12α-fluoro-5α,6α-oxidopregnan-17α-ol-11-one, and of 6β,12α-difluoropregnane-5α, 17α-diol-11-one; 6α,12α-difluoro-4-pregnen-17α-ol-3,11,20-trione, 6α, 12α-difluoro-4-pregnene-16α, 17αdiol-3,11,20-trione, 6,α,12α-difluoro-1,4-pregnadiene-16α,17αdiol-3,11,20-trione and its acetonide; 16α,17α-chloral, 16α,17α(1,1,1-trifluoroisopropylidene), and acetophenone derivs. of 6αfluoro-12α-chloro-16α-hydroxycortisone and the 21 acetate of the acetophenone derivative; 16α,17α-acetophenone derivs. of 6α,12αdifluoro-16α-hydroxyhydrocortisone, and of 6α,12α-difluoro-16αhydroxyprednisolone; 16α,17α-benzaldehyde derivative of 6α,12α-difluoro-16α-hydroxyprednisolone; 16α,17α-alloxan and 16α,17αdicyclopropyl ketone derivative of 6α-fluoro-12α-chloro-16α-hydroxyhydrocortisone; the acetonides of 3,3-ethylenedioxy-12α-fluoro-5-pregnene-11β,16α,17α,21-tetrol-20-one, of 3,3-ethylenedioxy-12α-fluoro-5α,6,α-oxidopregnane-11β,16α,17α,2,1-tetrol-20-one, of 3,3-ethylenedioxy-6β-chloro-12α-fluoropregnane-5α,11β,16α,17,.alpha.-21-pentol-20-one and of its 6β-Br and 6β-iodine analogs, of 6α-chloro-12α-fluoro-16α-hydroxyhydrocortisone and of its 6α-Br and 6α-iodine analogs, of 6α-chloro-12α-fluoro-16α-hydroxyprednisolone, of 6β-chloro-12α-fluoropregnane-5α, 11β,16α,17α,21-pentol-3,20-dione and of its 6β-Br and 6β-iodine analogs, of 6β,12α-difluoropregnane-5α,11β,16α,17α,21-pentol-3,20-dione, of 6α,12α-difluoro-16α-hydroxyhydrocortisone and of 3,3-ethylenedioxy-6β, 12,α-difluoro-5α,11β,16α,17α,21-pentol-20-one. Through mesylation and subsequent reflux with NaI in AcOH the acetonides of 6α,12α-difluoro-16α-hydroxyhydrocortisone and of 6α,12α-difluoro-16α-hydroxyprednisolone were converted

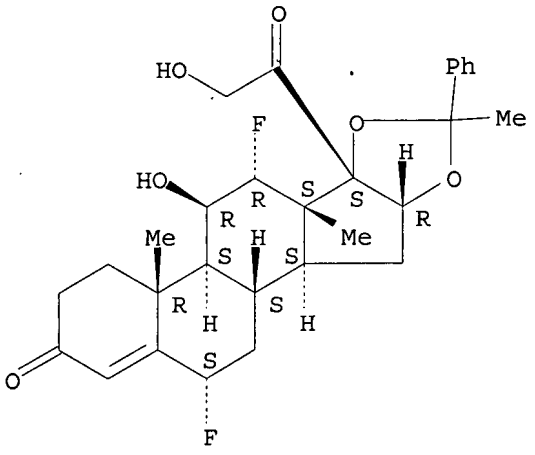
into the acetonides of 6α,12α-difluoro-4-pregnene-11β,16α,17α-triol-3,20-dione or of 6α,12α-difluoro-1,4-pregnadiene11β,16α,17α-triol-3,20-dione, resp. The title compds. showed glucocorticoid and anti-inflammatory activity.

IT ***3829-57-0***, Pregn-4-ene-3,20-dione, 6α,12α-difluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone
(preparation of)

RN 3829-57-0 CAPLUS

CN Pregn-4-ene-3,20-dione, 6,12-difluoro-11,21-dihydroxy-16,17-[(1-phenylethylidene)bis(oxy)]-, (6α,11β,12α,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 47 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	1962:476226 CAPLUS
DOCUMENT NUMBER:	57:76226
ORIGINAL REFERENCE NO.:	57:15201b-i,15202a-g
TITLE:	Acetals and ketals of 16,17-dihydroxy steroids
INVENTOR(S):	Fried, Josef
PATENT ASSIGNEE(S):	Olin Mathieson Chemical Corp.
SOURCE:	16 pp.
DOCUMENT TYPE:	Patent
LANGUAGE:	Unavailable
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3048581		19620807	US 1960-24230	19600425
PRIORITY APPLN. INFO.:			US	19600425

GI For diagram(s), see printed CA Issue.

AB Continuation-in-part of U.S. 2,975,172 (CA 55, 16604f). Methods are described for converting I (X = F or H, Z = halogen, acyloxy), having either a β-hydroxy or keto group at C-11, to the corresponding 16,17-acetal or ketal. Thus a mixture of 400 mg. 16α-hydroxy-12α-fluoro-11β-hydroxyprogesterone, prepared according to U.S.

2,855,343 (CA 53, 8211g) and 1.2 g. Al tert-butoxide in 120 ml. PhMe was heated to reflux for 2 hrs., then cooled and washed with dilute HCl, H2O, NaHCO3, and H2O again. After drying over Na2SO4 and distilling off solvent under vacuum, the residue was recrystd. from Me2CO-hexane to give 12α-fluoro-4,16-pregnadien-11β-ol-3,20-dione (II). To a solution of 77 mg. II and 0.1 ml. C5H5N in 5 ml. C6H6 was added 65 mg. OsO4. The mixture was left in the dark for 18 hrs. The precipitated osmate ester was decomposed by addition of 7 ml. H2O, 4.6 ml. MeOH, 700 mg. Na2SO3, and 700 mg. KHCO3, followed by stirring 4 hrs. at room temperature The mixture was diluted with 20 ml. CHCl3, dried over Na2SO4, evaporated to dryness, and the residue recrystd. from Me2CO-hexane to give 12α-fluoro-4-pregnene-11β,16α,17α-triol-3,20-dione (III), m. about 220-2°, [α]23D 102° (c 0.38, CHCl3). A solution of 30 mg. III and 0.05 ml. concentrated HCl in 10 ml. Me2CO was left at room temperature for 18 hrs., then neutralized with NaHCO3. Solvent was evaporated from the organic phase under vacuum; the remaining crystalline ***suspension*** was filtered, washed and recrystd. from 95% alc. to give 16α,17α-isopropylidene-12α-fluoro-4-pregnene-11β,16α,17α-triol-3,20-dione (IV), m. about 228-30°, [α]23D 138° (c 0.4, CHCl3). To a ***suspension*** of 500 mg. tri-amcinolone (V) in 75 ml. Me2CO was added 0.05 ml. 72% HClO4. The mixture was agitated 3 hrs. to give 16α,17α-isopropylidene-9α-fluoro-1,4-pregnadiene-11β5,16α, 17α,21-tetrol-3,20-dione (VI), m. about 288-90° (95% alc.), [α]23D 109° (c 0.75, CHCl3).

The same procedure was used to prepare the following 16α,17α-derivatives of triamcinolone: 2-butylidene m. about 255-60° (Me2CO-hexane), [α]23D 92° (c 0.39, CHCl3); 4'-methyl-2'-pentylidene, m. about 246-50° (Me2CO-hexane), [α]23D 81.5° (c 0.4, CHCl3); cyclohexylidene, m. about 278-81° (Me2CO-hexane), [α]23D 90° (c 1.01, CHCl3); 3-pentylidene, m. about 265-86°, [α]23D 91° (c 0.69, CHCl3). V was converted by this procedure to the following derivs.: acetophenone, m. about 281-3° (Me2CO-hexane), [α]23D 23° (c 0.98, CHCl3); ethyl levulinate, m. about 196-8° (Me2CO-hexane), [α]23D 75° (c 1.11, CHCl3). The levulinic acid derivative of V was prepared by addition of 1 ml. O-free 10% K2CO3 solution to a solution (kept under N) of 200 mg. of the Et levulinate derivative in 24 ml. of MeOH. The mixture was left 24 hrs. at room temperature, then acidified with dilute H2SO4. H2O was added and MeOH distilled under vacuum. The residue was extracted with CHCl3, this extract washed with NaHCO3 solution and the latter acidified with dilute H2SO4 and extracted with CHCl3. The organic phase was dried (Na2SO4) and evaporated to dryness in vacuo to give the levulinic acid derivative, m. about 240-2° (decomposition) (MeOH), [α]23D 51° (c 0.56, CHCl3).

Similarly, a ***suspension*** of 200 mg. 9α-fluoro-Δ4-pregnene-11β,16α,17α,21-tetrol-3,20-dione in 30 ml. Me2CO was stirred at room temperature 18 hrs. with 100 mg. p-MeC6H4SO3H, then worked up to give 16α,17α-isopropylidene-9α-fluoro-4-pregnene-11β,16α,17α,21-tetrol-3,20-dione, m. about 270-3° (Me2CO-hexane), [α]23D 137° (c 0.45, CHCl3). VI (50 mg.) was mixed with 1 ml. C5H5N and 1 ml. Ac2O, left 18 hrs. at room temperature, then evaporated to dryness giving 16α,17α-isopropylidenetriamcinolone 21-acetate, m. about 266° (Me2CO-hexane), [α]23D 92°

(c 0.59, CHCl3). The 16α,17α-chloral derivative of V was treated similarly. The residue after evaporation of reagents was chromatographed from C6H6 on acid-washed Al2O3 and eluted with C6H6, 5%, CHCl3 in C6H6, and 10% CHCl3 in C6H6 to give the 16α,17α-chloral derivative of triamcinolone 21-acetate (VII), m. about 281-4° (decomposition), [α]23D 36° (c 1.0, CHCl3). A solution of 4 g. VI and 8 g. succinic anhydride in 40 ml. absolute C5H5N was heated 2 hrs. at 60-70°, then cooled and treated with 20 g. ice. The mixture was poured on 150 ml. crushed ice containing 16 ml. concentrated H2SO4. The resulting precipitate was washed free of H2SO4 by H2O, giving 16α,17α-isopropylidene triamcinolone 21-hemisuccinic acid, m. about 231-3°, [α]23D 93° (c 0.39, CHCl3). By a similar reaction of VI with MeSO2Cl there was obtained 16α,17α-isopropylidenetriamcinolone 21-mesylate (VIII), m. about 248-50° (decomposition) or 286-7° (decomposition) (polymorphic) (Me2CO-hexane), [α]23D 92° (c 1.12, CHCl3). A mixture of 500 mg. VIII and 1.5 g. NaI in 15 ml. Me2CO was refluxed 40 hrs., then diluted with H2O. Filtration gave crystals of 21-iodo-21-deoxytriamcinolone 16α,17α-acetonide (21-iodo-9α-fluoro-Δ1,4-pregnadiene-11β,16α, 17α-triol-3,20-dione 16α, 17α-ace tonide), m. about 176-8° (decomposition), [α]23D 13° (c 1.12, CHCl3). In a similar manner there were prepared the corresponding 21-fluoro compound (from KF and ethylene glycol), m. about 310° (Me2CO), and 21-chloro compound (from LiCl and HOCNMe2), m. about 310° (Me2CO-EtOH). With stirring, 0.2 ml. SOCl2 was added at -15° to a solution of 200 mg. VI in 6 ml. absolute C5H5N. After 2.5 min. at this temperature, ice-H2O was added.

The mixture was extracted with CHCl3, which extract was then washed to remove acids and bases, dried (Na2SO4), and evaporated to dryness. The residue was chromatographed from 20 ml. warm CHCl3 on 4 g. neutral Al2O3 with 100 ml. CHCl3 and the product crystallized from Me2CO to give 80 mg. bis(triamcinolone 16α,17α-acetonide) 21,21'sulfite, m. about 285-6° (decomposition), [α]23D 114° (c 0.53, CHCl3. Similar treatment of VI with C5H5N and a 10% solution of COCl2 in PhMe gave bis(triamcinolone 16α,17α-acetonide) 21,21'-carbonate, m. above 340° (CHCl3-95% alc.). To a ***suspension*** of 272 mg. 9α-fluoro-4-pregnene-11β,16α,17α-triol-3,20-dione, prepared according to U.S. 2,975,172 (CA 55, 16604f), in 30 ml. Me2CO was added 0.025 ml. 70% HClO4. The mixture was stirred 90 min. at room temperature, then neutralized with NaHCO3 solution, and the organic extract was evaporated to dryness. Crystallization of the residue from Me2CO-hexane gave 16α,17α-isopropylidene-9α-fluoro-4-pregnene-11β,16α,17α-triol-3,20-dione, m. about 253-5°, [α]22D 150° (c 0.35, CHCl3). Treatment of 16-αhydroxy-9α-fluorohydrocortisone 16α,17α-acetonide, prepared as described for VI, by the procedure described for the preparation of VIII, yielded 16α-hydroxy-9α-fluorohydrocortisone 16α,17α-acetonide 21-mesylate (IX), m. about 225-7° (decomposition), [α]23D 112° (c 0.5, CHCl3). IX was made to react with NaI as described for VIII, giving 21-iodo-9α-fluoro-4-pregnene-11β,16α,17α-triol-3,20-dione 16α,17α-acetonide, m. about 173-5° (decomposition), [α]23D 130° (c 0.52, CHCl3). Infrared and ultraviolet data were given for the products.

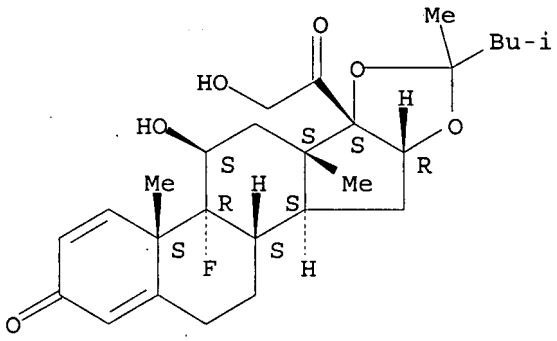
IT ***2794-91-4***, Pregna-1,4-diene-3,20-dione, 9-fluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with

4-methyl-2-pentanone ***3092-82-8***, Pregna-1,4-diene-3,20-dione, 9-fluoro-11β,16α,17,21-tetrahydroxy-, cyclic 16,17-acetal with acetophenone
(preparation of)

RN 2794-91-4 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 16,17-[(1,3-dimethylbutylidene)bis(oxy)]-9-fluoro-11,21-dihydroxy-, (11β,16α)- (9CI) (CA INDEX NAME)

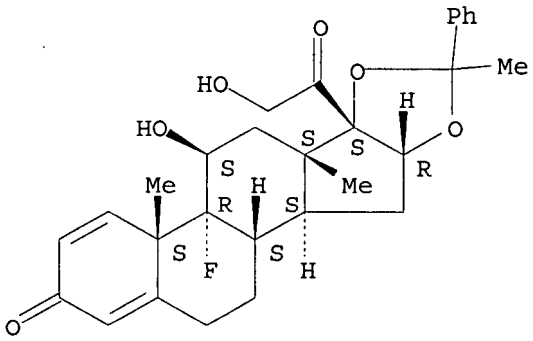
Absolute stereochemistry.



RN 3092-82-8 CAPLUS

CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[(1-phenylethylidene)bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L37 ANSWER 48 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1962:31635 CAPLUS

DOCUMENT NUMBER: 56:31635

ORIGINAL REFERENCE NO.: 56:6044g-i,6045a-b

TITLE: 16α,17α-Acetal and ketal derivatives of 16α,17α-dihydroxysteroids

INVENTOR(S): Fried, Josef

PATENT ASSIGNEE(S): Olin Mathieson Chemical Corp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1099529		19610216	DE 1958-O6301	19580806
GB 889765			GB	
PRIORITY APPLN. INFO.:			US	19570809

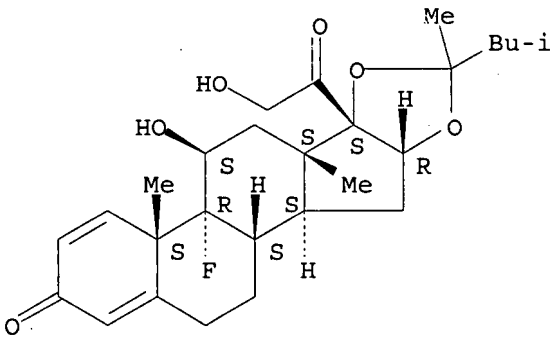
AB 16α,17α-Acetal and ketal derivs. of 16α,17α-dihydroxy steroids were prepared by use of an acid catalyst, with added solvent if necessary. Thus, 9α-fluoro-1,4-pregnadiene-11β,16α,17α,21-tetrol-3,20-dione (I) (triamcinolone) (500 mg.) in 75 cc. Me2CO treated with 0.05 cc. 72% HClO4 for 3 hrs. gave 523 mg. 16α,17α-isopropylidene-9α-fluoro-1,4-pregnadien - 11β,16α,17α,21-tetrol-3,20-dione (II), m. 288-9°, [α]23D 190° (c 0.75, CHCl3); 21-acetyl derivative m. 266°, [α]23D 92° (c 0.59, CHCl3). Rat liver glycogen assay of II showed 20 times the activity of cortisone acetate, and assay using cotton pellets showed 30 times the antiinflammatory activity of cortisol. The following 16α,17α-ketal derivs. of I were similarly prepared [16α,17α-substituent, m.p., [α]23D (c 0.39-1.01, CHCl3) given]: sec-butylidene, 255-60°, 92°; 4-methyl-2-pentylidene, 246-50°, 81.5°; cyclohexylidene, 278-81°, 90°; 3-pentylidene, 265-86°, 91°; 1-phenylethylidene, 281-3°, 23°. 16α,17α-Isopropylidene-9α-fluoro-4-pregnene-11β,16α,17α,21-tetrol-3,20-dione was prepared by use of p-toluenesulfonic acid monohydrate as catalyst, m. 270-3°, [α]23D 137° (c 0.45, CHCl3). 12α-Fluoro-11β-hydroxyprogesterone was hydroxylated microbiologically with Streptomyces roseochromogenus (Waksman Number 3698) to the 16α-hydroxy derivative (III), m. 218-19°, [α]23D 164° (c 0.50, CHCl3). III was refluxed with (tert-BuO)3Al in PhMe to give 12α-fluoro-4,16-pregnadien-11β-ol-3,20-dione (IV), m. 215-17°, [α]23D 209° (c 0.56, CHCl3). IV in C6H6 with OsO4 in the presence of C5H5N gave 12α-fluoro-4-pregnene-11β,16α,17α-triol-3,20-dione (V), m. 220-2°, [α]23D 102° (c 0.38, CHCl3). V in Me2CO with concentrated HCl gave the 16α,17α-isopropylidene derivative, m. 228-30°, [α]23D 138° (c 0.40, CHCl3). V (30 mg.) and 100 mg. p-nitroacetophenone with 5 cc. dioxane and 0.05 cc. concentrated HCl gave after 18 hrs. the corresponding p-nitroacetophenone derivative All the ketals so prepared showed glucocorticoid and antiinflammatory activity, of similar strength to that of hydrocortisone.

IT ***2794-91-4***, Pregna-1,4-diene-3,20-dione, 16α,17-[(1,3-dimethylbutylidene)dioxy]-9-fluoro-11β,21-dihydroxy-
3092-82-8, Pregna-1,4-diene-3,20-dione, 9-fluoro-11β,21-dihydroxy-16α,17-[(α-methylbenzylidene)dioxy]-
(preparation of)

RN 2794-91-4 CAPLUS

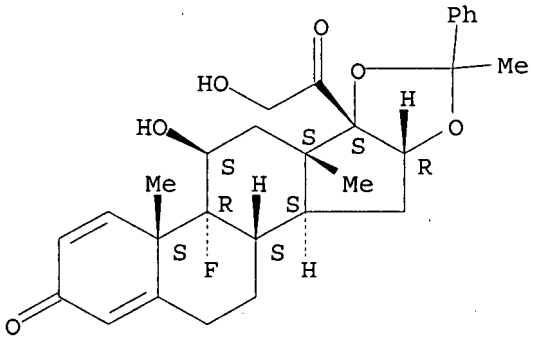
CN Pregna-1,4-diene-3,20-dione, 16,17-[(1,3-dimethylbutylidene)bis(oxy)]-9-fluoro-11,21-dihydroxy-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 3092-82-8 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[(1-phenylethylidene)bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

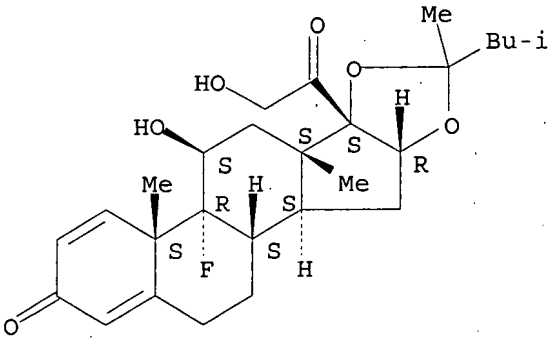
Absolute stereochemistry.



L37 ANSWER 49 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1960:118952 CAPLUS
DOCUMENT NUMBER: 54:118952
ORIGINAL REFERENCE NO.: 54:22804f-g
TITLE: Thymolytic activities of 16α,17α ketals of triamcinolone
AUTHOR(S): Ringler, I.; Brownfield, R.
CORPORATE SOURCE: Lederle Labs., Pearl River, NY
SOURCE: Endocrinology (1960), 66, 900-2
CODEN: ENDOAO; ISSN: 0013-7227
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Decreased weight of thymus gland in immature female rats was the basis of an assay used to evaluate a number of methyl(alkyl)16α,17α-ketonides of triamcinolone. The Me, Et, Pr, iso-Pr, Bu, iso-Bu, pentyl, and hexyl derivs. were more active than hydrocortisone, but the last 2 were less active than triamcinolone which is 4 times as active as hydrocortisone.
IT ***2794-91-4***, Pregna-1,4-diene-3,20-dione, 16α,17-(1,3-dimethylbutylidenedioxy)-9-fluoro-11β,21-dihydroxy-
(assay of, thymus gland in)
RN 2794-91-4 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[(1,3-dimethylbutylidene)bis(oxy)]-9-

fluoro-11,21-dihydroxy-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



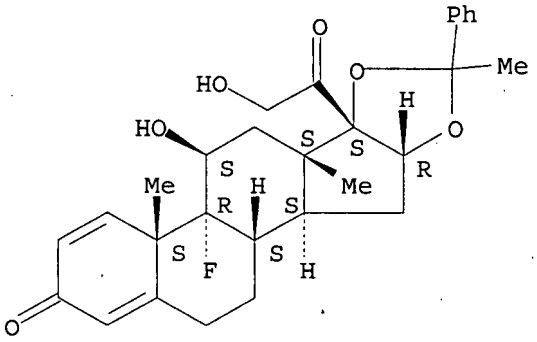
L37 ANSWER 50 OF 50 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1958:77297 CAPLUS
DOCUMENT NUMBER: 52:77297
ORIGINAL REFERENCE NO.: 52:13768f-h
TITLE: Cyclic 16α,17α-ketals and -acetals of 9α-fluoro-16α-hydroxycortisol and -prednisolone
AUTHOR(S): Fried, Josef; Borman, Aleck; Kessler, Woodrow B.; Grabowich, Paul; Sabo, Emily F.
CORPORATE SOURCE: Squibb Inst., New Brunswick, NJ
SOURCE: Journal of the American Chemical Society (1958), 80, 2338-9
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
OTHER SOURCE(S): CASREACT 52:77297

AB Certain cyclic 16α,17α-ketals and -acetals derived from 9α-fluoro-16α-hydroxycortisol (Ia) and -prednisolone possess considerably greater glucocorticoid and antiinflammatory activity than the parent compds. The steroid in the ketone or aldehyde agitated at room temperature with a trace of mineral acid (preferably HClO4) gave the cyclic compds. in excellent yield. For the parent compound and the reacting ketone or aldehyde, the m.p., and [α]D (CHCl3) of the product are: Δ1-9α-fluoro-16α-hydroxycortisol (I), AcH, 244-6°, 102°; Ia, AcH (II), 244-7°, 145°; I, Me2CO, 292-4°, 109°; II, Me2CO, 270-3°, 137°; I, MeCOEt, 255-60°, 92°; I, iso-BuCOMe, 256-8°, 89°, I, iso-BuCOMe, 185-8°, 88°; I, Et2CO, 265-8°, 91°; I, cyclohexanone, 278-81°, 90°; I, PhCOMe, 281-3°, 23°. 9α-Fluoro-16α-hydroxyprednisolone acetonide 21-acetate, m. 266°, [α]23D 92° (c 0.59, CHCl3), was unchanged by 4 hrs. refluxing in 0.1N H2SO4 in aqueous MeOH. Biol. activity increased progressively with decreasing mol. weight of ketal and acetal side chains with the exception of Ph compds. The most potent compds. surpassed 6α-methyl-9α-fluoroprednisolone. The conclusion was that the biol. activity is an inherent property of the substituted compds. and is not due to hydrolysis to the parent compound

IT ***3092-82-8***, Acetophenone, cyclic 16,17-acetal with

9-fluoro-16α-hydroxyprednisolone
(preparation of)
RN 3092-82-8 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 9-fluoro-11,21-dihydroxy-16,17-[(1-phenylethylidene)bis(oxy)]-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT ***2794-91-4***, 2-Pentanone, 4-methyl-, cyclic 16,17-acetal with 9-fluoro-16α-hydroxy-prednisolone
(stereoisomers)
RN 2794-91-4 CAPLUS
CN Pregna-1,4-diene-3,20-dione, 16,17-[(1,3-dimethylbutylidene)bis(oxy)]-9-fluoro-11,21-dihydroxy-, (11β,16α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.